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Enjine! Enjine!

ENJINE! ~ ENJINE!



THE PICTURE ON THE COVER



THE AMERICAN FIREMAN...“*Rushing to the Conflict*”

Reproduced from a lithograph by Currier & Ives

Published in 1858

Published June 1939

Second Printing September 1939

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The contents of this special limited edition are excerpts from a more extensive study of this subject which has been prepared for publication by the author

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ENGINE!~ENGINE!

A STORY OF FIRE PROTECTION

by KENNETH HOLCOMB DUNSHEE



Published by HAROLD VINCENT SMITH
for THE HOME INSURANCE COMPANY

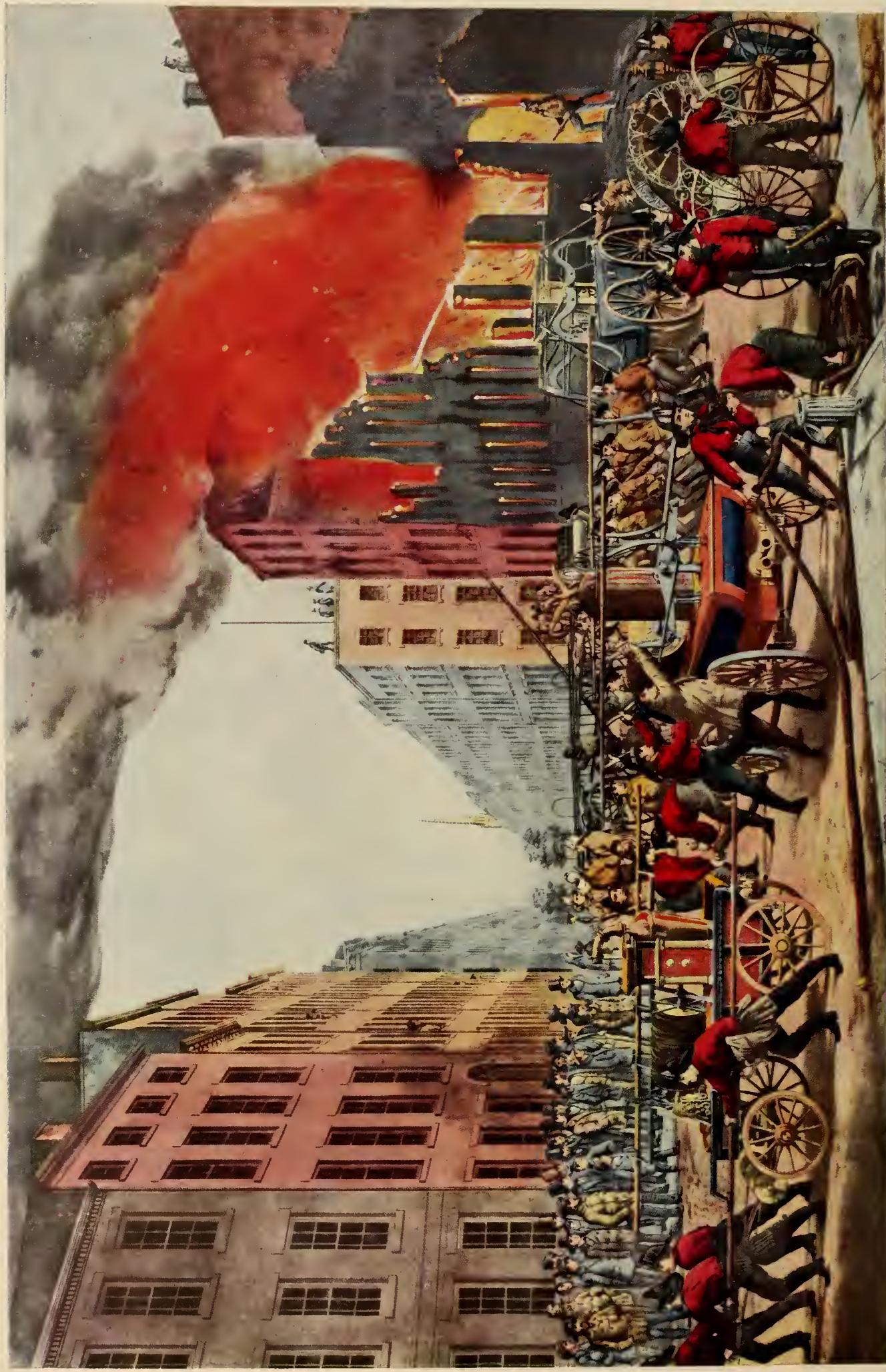
NEW YORK, N.Y.

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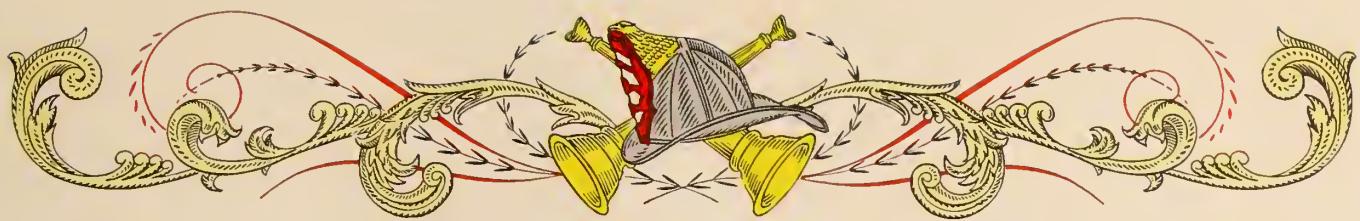
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THE LIFE OF A FIREMAN... "THE RUINS.—TAKE UP.—MAN YOUR ROPE." Reproduced from a lithograph by N. Currier, published in 1854



A STORY OF *Fire Protection*

THE STORY of fire-fighting goes hand in hand with the story of fire insurance in this country. Both came to life about the same time and, generally speaking, they have maintained a neat balance in safeguarding and restoring elements vital to the economics of a growing nation.

It is as a fitting tribute to the first and a visual reminder of the second that the following pages are presented. While within such limits it is possible to tell but a small part of the story of fire protection, it is hoped that, like restoring an old painting, some of the original color and character of the subject will be brought to light.

Knowing a few of the old New York engines, or "enjines" as they were most frequently called, following them and their intrepid firemen through these pages, will serve to illuminate one of the darkened chapters in the history of New York.

The New York scenes are representative; for, while the New York Fire Department has not always led in the introduction of new fire-fighting methods, since the early volunteer days they have furnished a pattern for most of the fire-fighting forces throughout the country.

Prior to its noise abatement era, New York was and probably always had been one of the world's noisiest towns. If some immortal sound instrument could record her cacophony down through the years, the clamor of the old-time

fire bells probably would strike the high notes on its imaginary sound track. New York, at least during the days of its Volunteer Fire Department, was known internationally for the "alarums and excursions" attendant on a fire record that was unsurpassed in the annals of insurance history.

In a manner, it is curious that time has so silenced this din of "clamorous appealing to the mercy of the fire" because New York's Volunteer Fire Department during its entire existence occupied a place of first rank importance in the social and political life of the city.

While history records that its earlier Dutch and British colonials turned out with much zest to fight the common demon, Fire, it was in December, 1737, that the General Assembly of the Colony passed an act instructing the Corporation "to appoint not more than 42 able, discreet, sober men as firemen." Thus was established the Volunteer Fire Department which served New York until the latter part of 1865, a span of nearly 128 years.

Service in the Old Fire Department was voluntary and without monetary compensation. Membership in the fire companies was decided entirely by election just as the firemen elected their own foreman and other officers by ballot. After a certain period of service the fire fighter was exempt from jury and military duty.

Of his stature as a protector of property and a saver of lives, the annals of the city are full to overflowing with words of praise. As to his color and dash, his engines, with their beautifully painted panels, silver and gold plating, plumes, gilt and carvings, give some hint. As to his reputation, we quote the following from one distinguished Charles Mackay, editor of the Times of London, foster-father of Marie Corelli, who, after visiting America in 1857, wrote:

"Whatever the Americans are proud of—whatever they consider to be peculiarly good, useful, brilliant, or characteristic of themselves or their climate—they designate, half in jest, though scarcely half in earnest, as an 'institution.' Thus the memory of General Washington—or 'Saint' Washington, as he might be called, considering the homage paid to him—is an institution; the Falls of Niagara are an institution; the Plymouth Rock, on which the Pilgrim Fathers first set foot, is an institution—as much so as the Blarney Stone in Ireland, to which an eloquent Irish orator, at a public dinner, compared it, amid great applause, by affirming that

the Plymouth Rock was the 'Blarney Stone of New England.' 'Sweet potatoes' are an institution, and pumpkin (or punkin) pie is an institution; canvasback ducks are an institution; squash is an institution; Bunker's Hill is an institution; and the firemen of New York, a *great* institution."



Just as it is a far cry from the apprenticeship of the old-time runners or bunkers to the Fire College of the City of New York where the worthy Fire Commissioner and his staff oversee the education in firemenship of hundreds of young men annually, so the volunteer firemen of today, more than a quarter-million strong throughout the country, have developed from their colorful past into a well-trained, well-equipped fighting group that is serving the public as a worthy complement to paid department efficiency.

Symbolic of fire protection, these pages are dedicated to the dauntless spirit of all fire fighters, both past and present—one has only to observe the way of a fireman with his engine, whether paid or volunteer, to feel reassured as to the future.



The H. V. SMITH Museum Collection

THE telling of this story is due entirely to the expert knowledge, undying interest, vision and generosity of a man who, through many years' efforts, has gathered together many of the last authentic records and reliques of a past that largely forms what has become the present tradition of a great profession—fire fighting, and a great social service—fire insurance. Since Harold V. Smith, President of The Home Insurance Company, America's largest fire insurers, gathered his first few fire marks while a lad in his 'teens in Philadelphia, his collection has grown into one of the most unusual, extensive and authoritative museum collections of fire memorabilia in the country. This museum is located at 59 Maiden Lane, New York City.

An important part of the Smith collection consists of some 1,200 fire marks which in earlier days were used by insurance companies to identify insured property. A number of the earlier marks collected by Mr. Smith were the "Hand-in-Hand" of the Philadelphia Contributionship and the "Green Tree" of the Mutual Assurance Company of that city.

Not only does the collection include many other rare American and English fire marks but also marks in a number of languages among which are Russian, French, German, Greek, Turkish, Italian, Spanish, Japanese, Chinese and Javanese.

Several of the marks of French, German and Belgian insurance companies were obtained in Belgium from the walls of homes destroyed by shell fire during the World War. The H. V. Smith collection of foreign fire marks and plates is the largest in America.

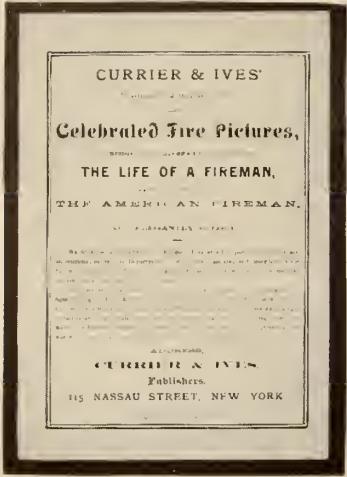
One of the most prominent displays is a Button piano engine, the body of which is constructed of solid, inlaid mahogany. This engine, a gift of Wilfred Kurth, came from Middletown, N. Y., but is said to have been a New York City engine originally.

An interesting group in the Museum is comprised of fire-engine models showing the principal types of fire-engines, hose carts and hook and ladder trucks used by the volunteer firemen between the years 1732 and 1865. The handsomest of these, a replica of Lafayette Engine No. 19 of New York City, is an exact duplicate of a working scale model made for exhibition at the World's Fair Exposition in the Crystal Palace in New York in 1853.

There is a model also of the rotary type fire-engine which George Washington purchased in 1775, in Philadelphia, and presented to the Alexandria, Va. Friendship Fire Company, of which he was a member.

The model of the first tub fire-engine manufactured in New York in 1743 suggests those





olden times when firemen and bucket-men here and elsewhere wore stove-pipe fire hats, a number of which are shown in the Museum.

Some of the fire buckets date from the early history of the city when all

householders or landlords were required by law to keep a number of these available for the use of the fire department in forming bucket lines to fill the tubs of the earlier engines. A most interesting bucket is one from Buckingham Palace bearing the coat of arms of the royal family of England.

The collection of fire prints, probably the largest of this nature that has been gathered, consists of several printings of the entire Currier

& Ives series, "The Life of a Fireman," "The American Fireman," firemen's certificates and other subjects, including "The Darktown Fire Brigade." In connection with the latter, there is an original sketch from which the subject was drawn on stone by the lithographers of Currier & Ives. Practically all prints on the subject of fires, firemen, fire-engines appearing in Harper's Weekly, Leslie's, Gleason's and other magazines are either framed or bound in large volumes which have been placed in the Museum for the use of visitors or students.

In addition to many firemen's certificates, fire insurance policies, almanacs and calendars, there are unique samples of legal tender issued by The Adrian Insurance Company.

During the New York Conflagration of 1835, the Franklin Fire Engine Company of Philadelphia hauled their engine through mud, ice and snow for three days in an attempt to bring assistance to the New York Fire Department. Although they arrived a day late, their heroic



efforts were so appreciated that they were lavishly entertained by the New York firemen and presented with a pair of ornately carved engine panels upon which were well-executed painted figures of Benjamin Franklin. One of these panels is included in the Smith collection.

The large solid silver and gold inlay service shown here was presented to Isaac N. Marks, President of the Firemen's Charitable Association of New Orleans. Marks was a prominent business man of that southern city and took a great interest in the affairs of the firemen. He was at one time President of the Firemen's Insurance Company of New Orleans. The presentation took place at the Grand Opera House, then the Varieties Theatre, on March 4, 1872. The service consists of a five-gallon punch bowl standing over thirty inches in height, and thirty-three goblets with the handles wrought to represent firemen. Every feature of the beautifully engraved design is symbolic of the old volunteer firemen, their machines and tools of trade. Each



of the goblets represents an engine, hose or hook and ladder company of New Orleans.

The Museum library contains an extensive collection of volumes on the history of fire insurance, fire-engines, conflagrations and lore pertaining to the old-time firemen. Included also is a large collection of patent papers on many of the fire-engines and other fire extinguishing apparatus.

That fire-engines have always been thrilling to the juvenile heart is reflected in the large collection of toys, some of which date from the



early volunteer days. One of the earliest and most interesting shown here actually pumps water, throwing a stream about twenty feet.

When the Museum of the Volunteer Firemen of New York was broken up some years ago, a large collection of hat fronts and presentation shields disappeared. Located in Philadelphia these were acquired so that they might be returned to New York. They now appear in the Museum and include several hundred specimens. Among the most interesting are the hat fronts of Harry Howard, Chief Engineer of the New York Fire Department from 1857 to 1860, and Dave Broderick, Foreman of Engine 34, who later was elected a Senator in California and was killed in a duel.

Among the miscellaneous but no less interesting items is a mirror from Mrs. O'Leary's house in Chicago, a copper bolt made by Paul Revere and taken from the U.S.S. Constitution, an order signed by Benjamin Franklin for rations for the Invalid Corps during the Revolutionary War and



a number of relics from the great Chicago and San Francisco conflagrations.

After the Chicago Fire of 1871 destroyed the Chicago office of The Home Insurance Company, temporary headquarters for the adjustment of losses was set up in a loft, and from the small desk shown in the Museum, Harry H. Walker, Resident Secretary in Chicago, adjusted the losses and kept the records of the payments of \$3,150,-586 to the company's Chicago policyholders.

With the exceptions noted on the last page of this book, the illustrations used are reproduced from pictures or specimens on display in the H. V. Smith Museum.



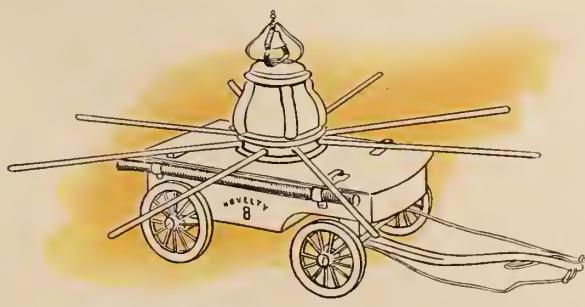


The OLD "MASHHEENS"

LIKE so many things that are not appreciated until they are ended, so did the old-time volunteer firemen suffer from the lack of much serious literary attention until after their disbandment. By that time the aura of legend and romance surrounding the machines that had so faithfully served for one hundred thirty-three years had become even more misty than hallowed.

It is our purpose here to show the more common and popular types of engines used during the days of New York's volunteer firemen.

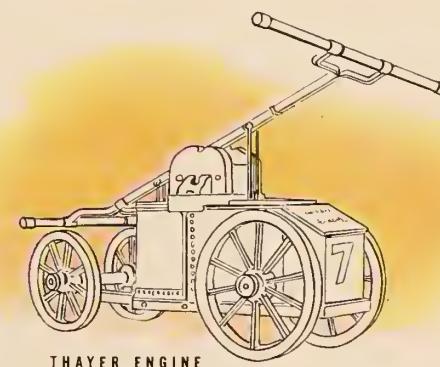
As to the beginnings of the hand fire-engine, a manuscript written in Greek by one Heron some 200 years before the Christian era, and translated into Latin in the 16th century, shows a type of engine used in Egypt during the days of the Ptolemies, which is a counterpart in principle of the type employed in later centuries in Europe and America. This book, called the "Spiritalia," is one of a few precious documents that escaped destruction in the burning of the famed Alexandrian library. Heron described a double forcing pump, and a central air chamber concerning which he observed, "The water was forced out by means of compressed air." The history of the development of the fire-engine in Europe in the 17th and 18th centuries seems to



"CIDER MILL" OR SWEEP TYPE ENGINE

indicate that this principle went through the process of rediscovery.

By the time fire-engines came into use in America this principle was recognized and understood. The failure of so many of the earliest



THAYER ENGINE

machines was due more to mechanical imperfection or clumsiness than to error in principle.

The first really successful mobile engine seems to have been developed in the early 18th century by Richard Newsham of London. Two of these engines, of the fourth and sixth sizes, as described in Newsham's contemporary advertisement, were imported by New York in 1731 and were the first machines to be used in that city.

While there were numerous attempts, the first successful engine to be built in New York was by Thomas Lote, a box-like affair with solid wooden wheels.

The goose-neck fire-engine, a development of the old Newsham engines, was for many years New York's most popular engine. Goose-necks were so called from the shape of the elevation pipe that protruded from the top of the air chamber which was built over the rear wheels and stood about four feet above the deck of the machine.

Another early fire-engine was the rotary type,

which was operated by a crank on each side of the machine. This was popularly known as a "coffee mill." The pump handles or brakes were long enough for six or eight men to take hold.

While "suctions" were mentioned as early as 1733, these were probably what were known otherwise as pump hose or troughs which carried the water from a water pump, cistern or supply tank to the feeder box of the engine. It was not until 1819 that the New York engines were furnished with suctions and the old machines altered so as to use them. The following stanza is from a song written by a gentleman of New Bedford, Mass.:

"Let a peep at the past, a moment engage
When the 'Jolly Rope Maker' appeared on the stage;
Though christened the Phoenix, and robbed of her tail,
If you filled up her tub she would spout like a whale."

Their engine had a suction but because its purpose was not understood the firemen plugged it up.

A unique engine and one with great suction power was that popularly known as the "cider-mill." This engine was equipped with rotary pumps worked like the capstan of a ship, the men pushing the bars by walking around the engine. This machine was often used to furnish water for other engines.

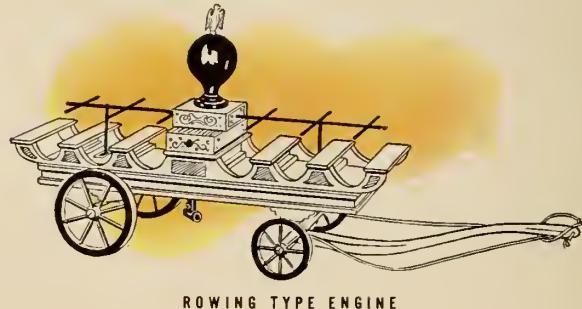
In New York, James Smith was a leading manufacturer and produced engines of various types from his first goose-necks, which appeared immediately following the War of 1812, down to a steam-engine which he introduced in 1856. Other makers of New York engines were Jeffers & Co. of Pawtucket, R. I.; John Rodgers of Baltimore; John H. Sickels, W. H. Torboss, Vanness and Pine & Hartshorn of New York City; Button & Co., Gleason & Bailey, Cowing, Rumsey and Silsby of New York State.

William C. Hunneman, an apprentice of Paul Revere, and Ephraim Thayer of Massachusetts developed end-stroke engines which became very popular throughout New England and Canada.

Among the early Philadelphia fire-engine

makers were Pat Lyon, Joel Bates, Gibbs, Mason, and probably the most successful, Agnew & Co. "Philadelphia" engines were generally of the double-deck end-stroke type of original French pattern and were much in demand throughout the country. Some of New York's most powerful engines were made by Agnew & Co.

An unusual machine was patented on April

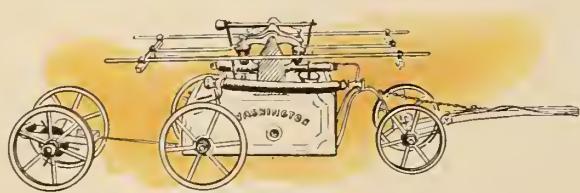


ROWING TYPE ENGINE

17, 1847, by Dudley Farnum and Franklin Ransom of New York City. This engine had its pump arranged in such a manner that men seated on the body could apply their strength as in the act of rowing. While this engine was a New York invention, it was used chiefly in Cincinnati and other middle-western cities.

Another important type of fire-engine was developed by the Button Fire Engine Works of Watertown, New York in 1838. This was the piano engine, so called because it was thought that its box-like body resembled a piano.

In 1841 this company made the first pump for a fire-engine with valves set at an angle of about 40 degrees, and with straight level waterways from the inlet to the outlet. In the same year they made the first engine with folding brakes. In 1842 this engine was equipped with a slotted walking beam or cross-bar, by means of which the leverage on the pump could be shortened or lengthened, changing the capacity of the engine without altering the stroke of the brakes. In 1848 they introduced the first engine with the suction hose permanently attached and carried in what was called the "squirrel tail" style. In the same year this company also developed the crane-neck engine, which got its name from the curved super-structure on the front end of the body, permitting the front wheels to turn under, so that the engine could be turned in its length. It was not long before all of these types



HUNNEMAN ENO-STROKE

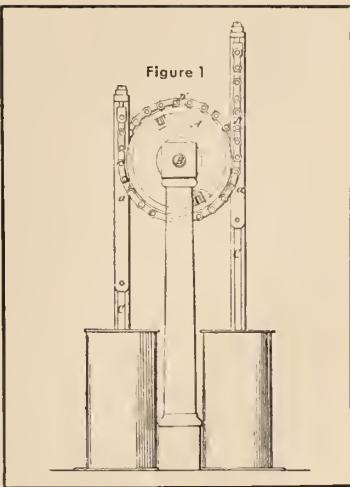


Figure 1

were copied by other manufacturers both here and elsewhere. Another well-known New York engine was the Shanghai, presumably so named from the pagoda-like shape of her decks, developed

and built by James Smith in the late 1850's. Variations of the piano engine include that equipped with Carson's patent capstan (Figure 1), and the double-deck side brake type, known also as a "haywagon."

Illustrations showing the different types of engines used in New York will be seen on Pages 14 to 29, inclusive.

Hand engines were normally operated at about 60 strokes a minute. They were sometimes speeded up to 120 strokes a minute, and on one occasion it was recorded that the men were pushed to 170 strokes a minute. A stroke consisted of a full up and down motion of the brakes. At the normal paces men could last at the brakes for about ten minutes, but when the engine was being pushed hard, one, two or three minutes were all that a man could stand. Firemen frequently suffered painful injuries, such as torn fingers and broken arms, when jumping in for relief when the engine was being operated at high speed.

Engines were sometimes referred to by the old vamps as having pump cylinders of a certain "caliber." In different engines the size of the pump cylinders varied from 5 inches to 10 inches in diameter; the stroke of the piston rods varied from 8 inches to 18 inches; the length of the power bars or brakes was from 16 feet to 25 feet. A first-class engine, which would be one

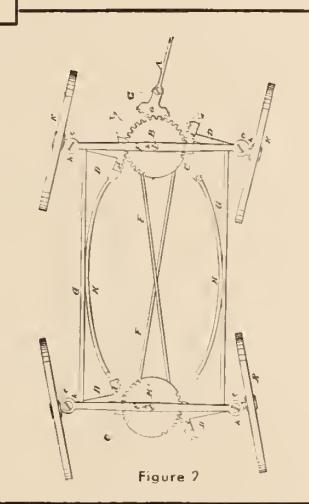


Figure 2

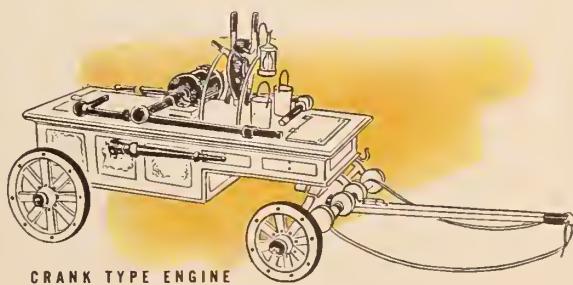
with 9-inch or 10-inch cylinders, would require from 40 to 60 men to haul and operate it.

Hose reels first appeared as part of the engines and additional hose had to be carried to fires on the shoulders of the firemen. The first hose vehicle seems to have been a two-wheel box-like cart into which coiled lengths of hose were piled. When the companies began to demand additional quantity of hose and a better means to carry it, David J. Hubb, Foreman of Engine 13, invented the two-wheeled hose reel. This was known as "Hubb's Baby" and was either attached to the engine by tail-hooks or drawn by two members of the company. Reels of this type were known as "jumpers," "leader carts" or "tenders."

At about the time regular hose companies began to be formed, the hose reel was enlarged and mounted on four wheels. Springs and many other improvements were introduced. Among these was Pine's invention of a running gear, illustrated from the original patent papers, (Figure 2). It is claimed that New York Hose Company 9 was the first to make use of bells on its hose carriage.

The first hooks and ladders used by the Fire Department were carried to fires by the firemen. Two- and four-wheeled trucks were introduced in the latter part of the 18th century. As the size of the ladders increased, the trucks became so difficult to maneuver that the rear wheels were made to turn in a manner similar to the front wheels. An extra tongue or tiller for steering was added to the rear of the machine. Long straps of wrought-iron flared out from the sides of the truck and when running to a fire, members of the company not actually steering the apparatus fore and aft, hauled the truck by grasping the leather or rope handles fastened to the strap-iron.

"One, Two, three, four!
The panting Foreman's trumpet bellows
'Pull her along and jump her, fellows!'
Down through the cobbled avenues roar."

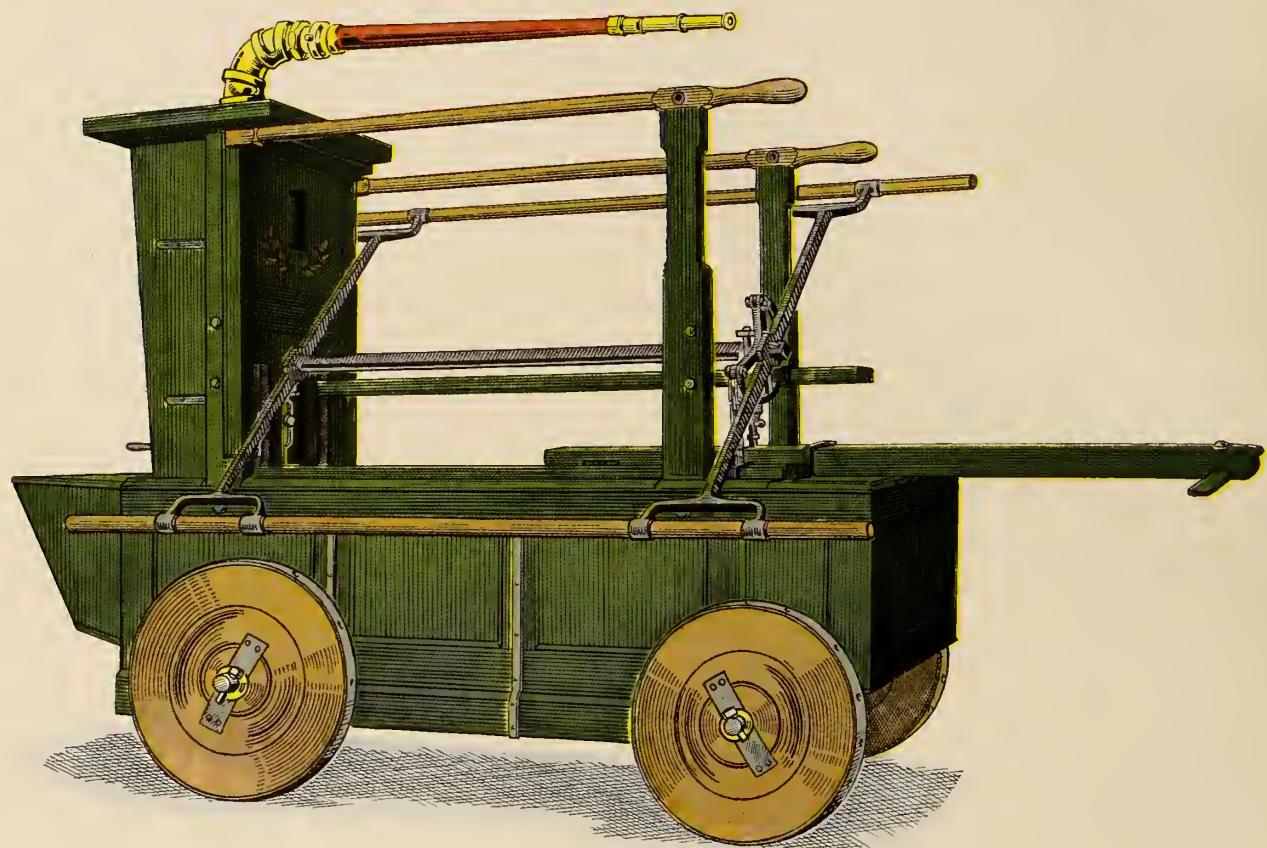


HAYSEED

HUDSON ENGINE



NEW YORK



NEW YORK's first fire-engine was the side-stroke, goose-neck, tub engine manufactured by Richard Newsham of London, shown above. It was one of two imported from England in 1731 and was the engine of the "sixth" or larger size, having a capacity for 170 gallons of water in its cistern as described in a contemporary advertisement of its maker. In addition to the pumping handles or brakes, as they were called, this machine was equipped with auxiliary treadles which could be operated by two or three men standing between the horizontal bars above her deck. The body, without the water feeder box at the rear, measured 6' 8" in length and 22½" in width, with a deck 25" high. Before the use of

hose became practical, the stream of water was directed from the nozzle or pipe attached to the top of the air chamber over the rear wheels. This engine was not fitted with apparatus for suction and had to be filled by buckets.

During the Revolutionary War this Company, the first organized in New York City, together with others, was detailed as a home guard under General Washington, although Jacob Stoutenburgh, Chief Engineer, assumed command at fires.



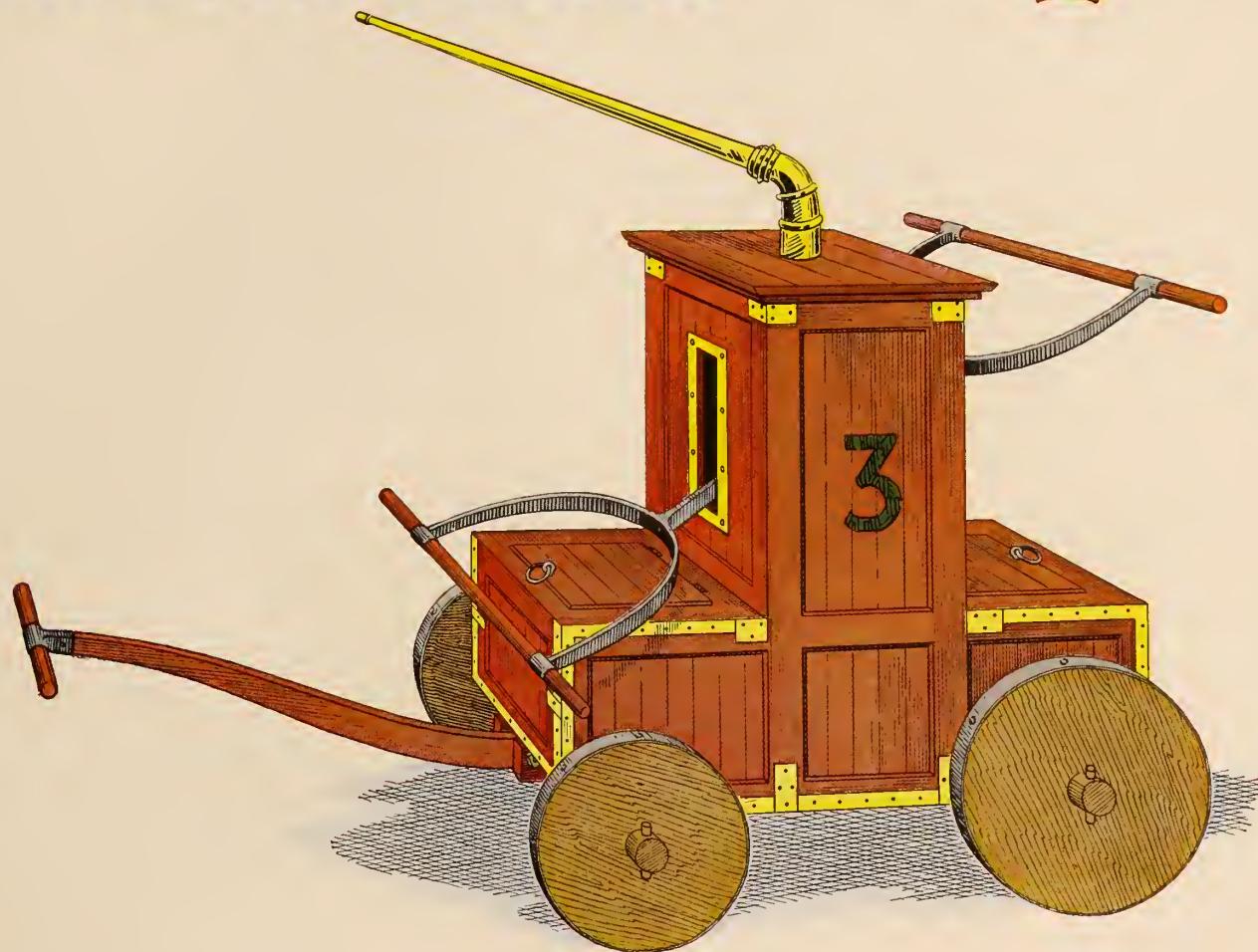
Popularly known as the "Hayseeds," the engines which this Company ran were dubbed "Hayseed" or "Hay Scales." While the Company was disbanded at one time for fighting, they were reorganized and continued until 1865.

OLD BRASS BACKS

NEW YORK ENGINE

3

NEW YORK



ACCORDING to old records, this end-stroke, goose-neck, tub fire-engine was the first successful machine manufactured in New York. Thomas Lote, a cooper and boat builder, who had a shop at the foot of Fair Street, now known as Fulton Street, built and delivered it to the city in 1743. The engine got its name, "Old Brass Backs," from the fact that the builder was lavish in his use of brass on the box of the engine.

This Company, one of the oldest in the city, was known at different times in its long history under the names of New York, Dugan, Metamora, Hope, National, Broderick and Forrest Engine Company.

While Engine Companies 9 and 44 were their traditional rivals, No. 3 was disbanded at one time for fighting with Engine Company No. 40.

During the Civil War a number of its members joined the First and Second New York Fire Zouave Regiments and saw action in several engagements. Some of the "boys" from Engine 3 were with the First Fire Zouaves when they captured the handsome double-deck fire-engine of Valley Forge



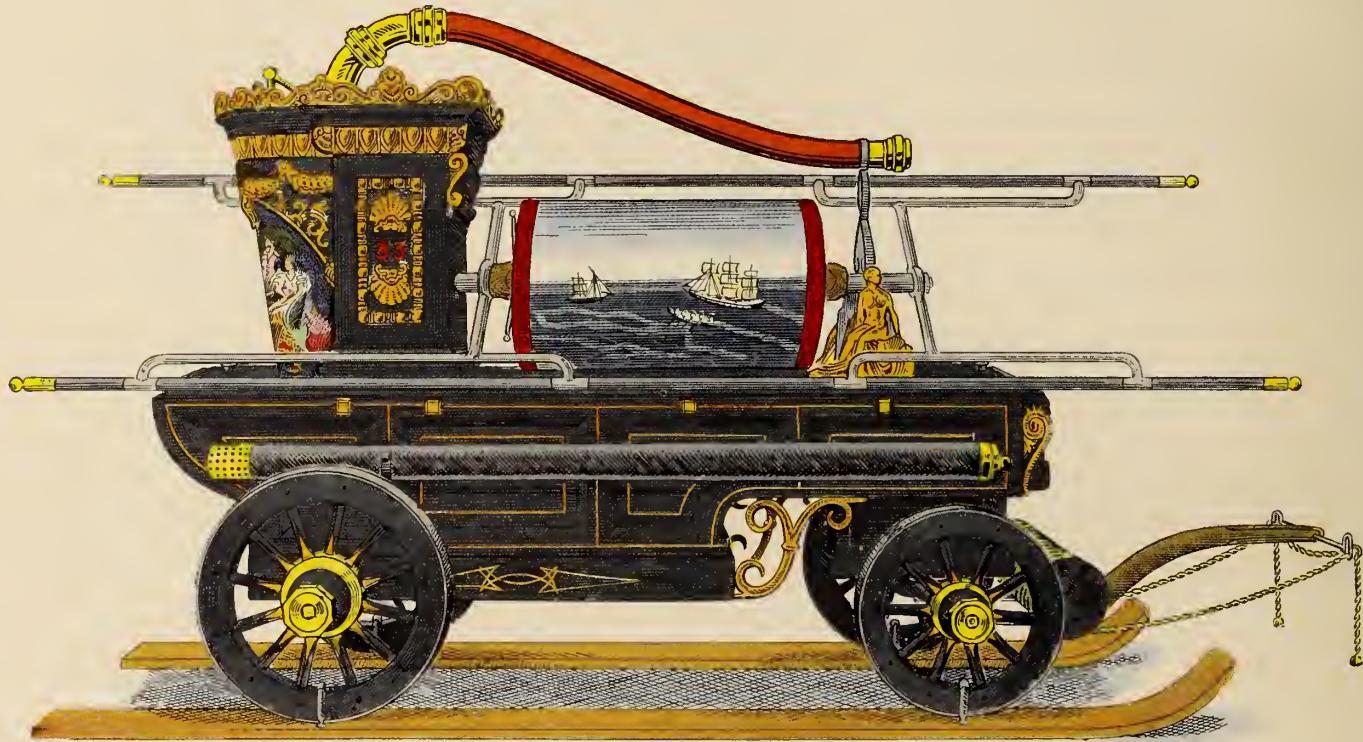
Engine Company No. 1 of Alexandria, Va., following the first Battle of Bull Run. This engine was used in later years by the New York Veterans' Association, and is now in the Museum at the Firemen's Home in Hudson, N. Y.

BLACK JOKE

BLACK JOKE ENGINE



NEW YORK



THIS MACHINE, a goose-neck, known also as an "Old New York Style" engine, was manufactured by James Smith and delivered to Company 33 after old "Bambazoola," their first tub engine was destroyed in a fire in 1824.

The illustration shows how the old-time engines were fitted with runners for hauling the machines through heavy snow.

"Black Joke" was adopted as the name of the Company, in honor of the exploits of a well-known privateer during the War of 1812; this in spite of a golden trumpet proffered by a lady, a descendant of the Gouverneur family, on the condition that the Company be named "Lady Gouverneur."

At the Great Fire of

1835, Black Joke was placed on the deck of a brig at the foot of Wall Street and supplied water from the river to another engine playing on the fire farther up the street. The weather was bitter cold and the "boys" were frequently obliged to leave the brakes to thaw out in the brig's cabin.

When those on deck judged that their turn at the stove had come, the expedient of placing a fire hat over the stove's pipe speedily smoked out those below . . . This Company had a reputation as fighters and were great rivals of Companies 6, 15 and 44. At one time their engine was "turned tongue in" and the Company disbanded for fighting but they were reorganized later and continued to render good service.

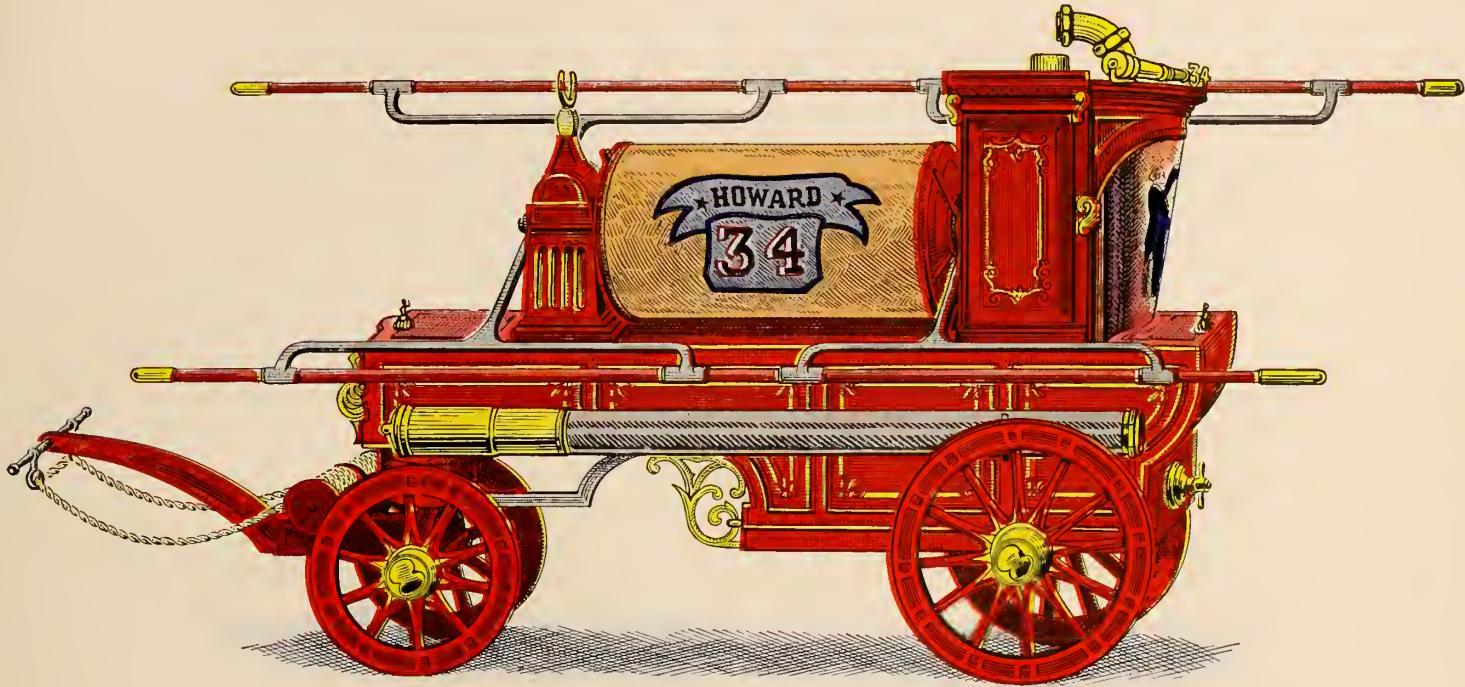


RED ROVER

HOWARD ENGINE

34

NEW YORK



RED ROVER was one of the most famous engines of the old volunteer days. She was goose-neck with $6\frac{1}{2}$ " cylinder and 9" stroke. A photograph of the painting on her back panel is reproduced on Page 60.

The Company, organized in 1807, was named after Harry Howard, who later became Chief Engineer of the New York Fire Department.

One of the most colorful events in the long, colorful career of Red Rover occurred at the so-called "Mackerelville" fire where she had a terrific struggle with Engine 14. Arriving first, she secured a good position for drawing water from a pond. When Columbian Engine No. 14 arrived from Vesey Street, they

were hailed by No. 34 to take their water, to which they agreed. While Columbian's boys were getting their engine into position, 34 began pumping slowly, "charging the hose," as they called it. When 14 gave the word, in went 34's butt and both companies went to work with a will.

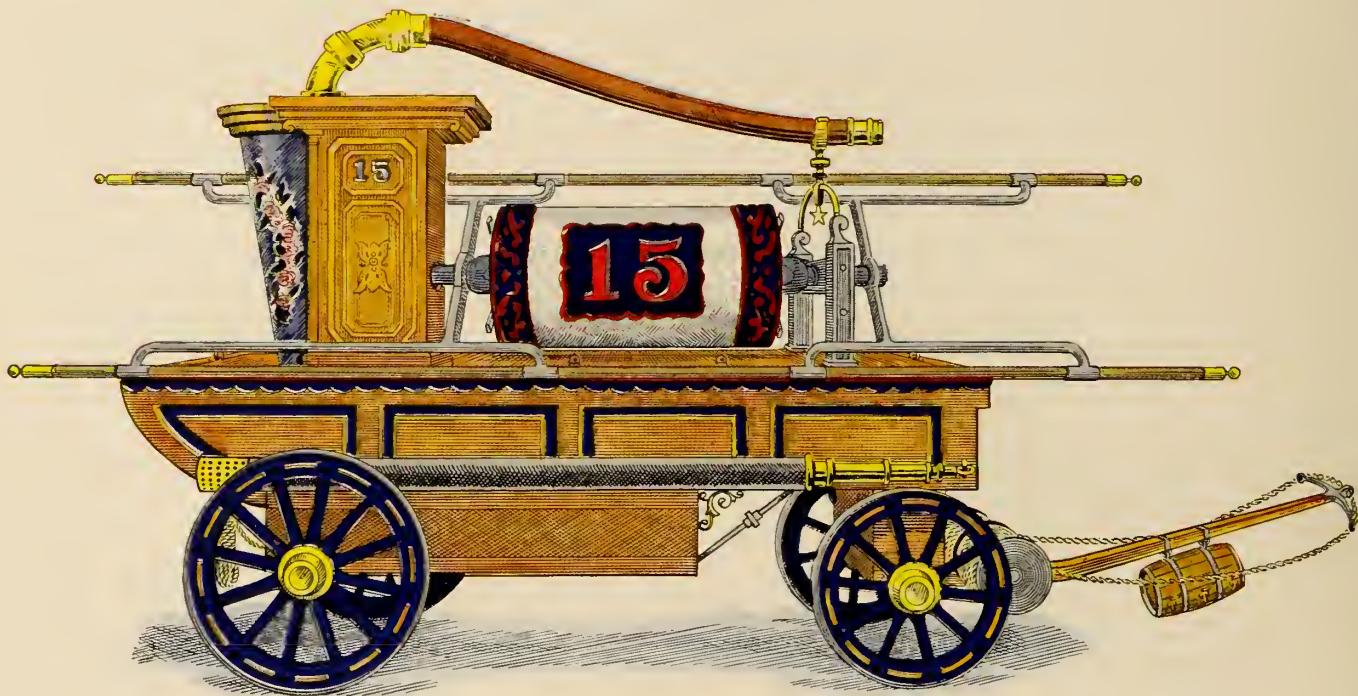
The men stood in rows three or four deep and as fast as a man would drop off the brakes he would be replaced by another. The water in 14 began to rise slowly but surely and, though she

was several times momentarily saved by the order, "Vast playing," she finally overflowed in spite of the best that her boys could do. To be washed by a rival engine was considered a great blow to the pride of the old volunteer firemen.



OLD MAID

CHATHAM ENGINE 15 NEW YORK



No. 15, known also as "Old Wreath of Roses," was a goose-neck manufactured by Harry Ludlum in the 1820's. She was one of the most powerful engines of her day. The body or box was constructed of rosewood which was highly polished in a natural finish.

The use of spirituous liquors became so common among the volunteers at one time that it became a matter of great concern to temperance workers. Small tripartite kegs containing brandy, spirits and gin were often buckled to the shafts of the machines for use at fires, as shown here.

In its prime this Company had the greatest number of runners in the city. These were divided into two parties known as the "Fly-by-nights" and "Bloods." It was said they could lick any other company in the Department.

The first time an engine was washed she was said to be no longer a maiden. This explains 15's soubriquet of "Old Maid," because for a long time this engine was not washed by any other.

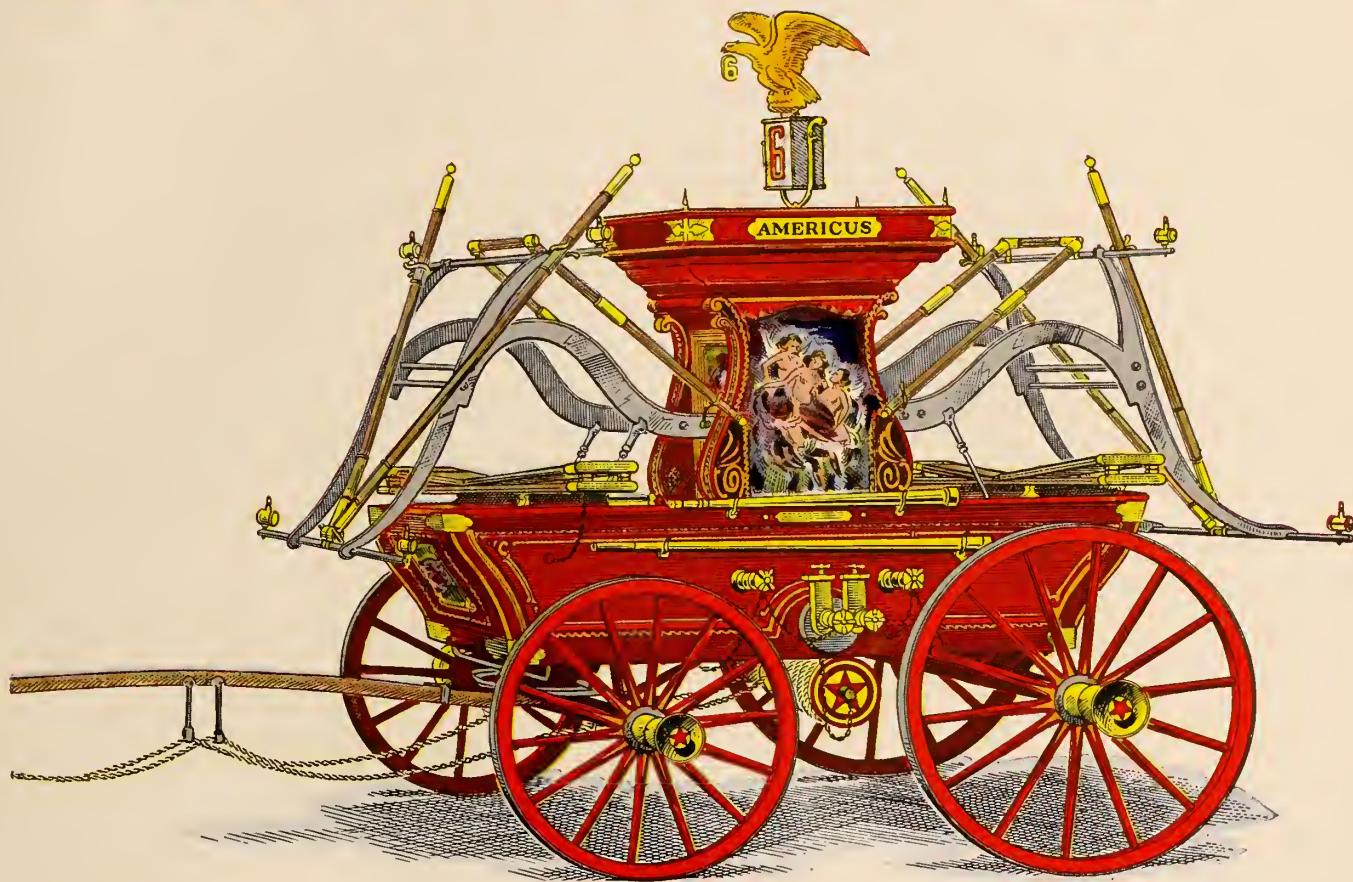
From their habit of making for the river in order to get to water first, No. 15's men often were called "Dock Rats" and any engine that took their water was likely to get washed.

When working in line, one or two firemen from each company were assigned the duty of holding the butt of their hose into the cistern of the engine into which they were pumping. Between playing periods these men would take a kink in the hose in order to keep it filled with water. Charging the hose for instant action in this manner was called "nigging," and was considered an unfair advantage.



BIG SIX

AMERICUS ENGINE 6 NEW YORK



JOHN AGNEW of Philadelphia built this machine in 1842. It was a second-class engine with $8\frac{1}{2}$ " cylinders and a 9" stroke and was one of the first double-deckers used in the New York Department. Big Six received its name because of its unusual size in comparison with the little old goose-neck engines run by most of the other companies.

Engine Company No. 6 was originally organized in 1765 and first did duty with buckets until an engine could be built for them. In their earlier years they were known as Neptune Engine or "Bean Soup."

For many years this Company and Engine Company No. 1, the "Hayseeds," were bitter

rivals and as a result of fighting between them, No. 6 was disbanded by the city authorities in 1846. The Company was later reorganized and known as Americus Engine Company No. 6 and on May 23, 1850, William M. Tweed, the famous "Boss Tweed" of Tammany Hall, was elected foreman. No. 6 was popularly known also by the name "Tiger," due to the fact that a tiger's head, painted on the box of the engine, formed a part of its decorations. It was from this painting that Thomas Nast, the well-known and powerful cartoonist, adopted the tiger in his drawings as a symbol for Tammany Hall.



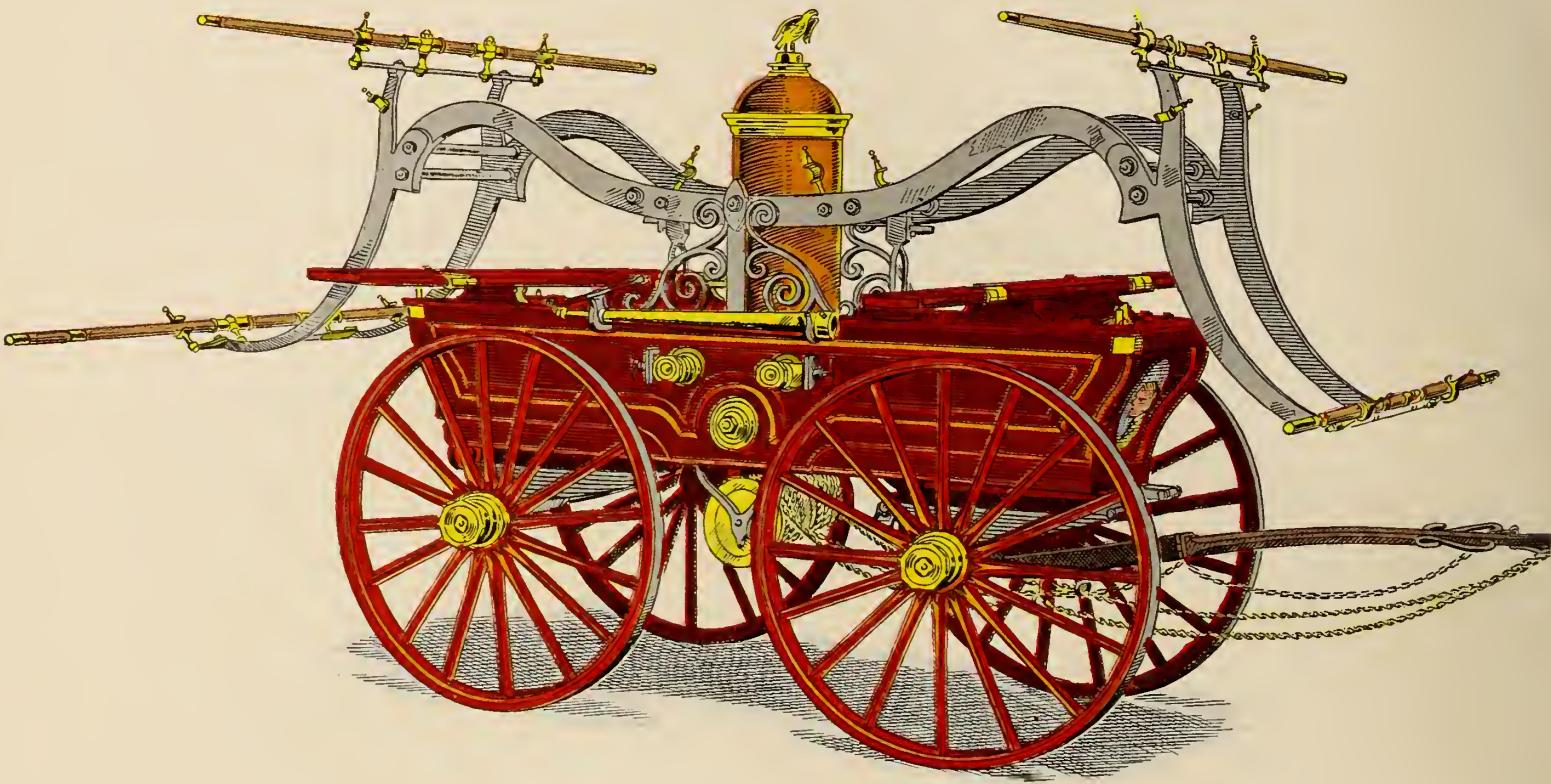
"So here's a health to the Tiger's friends,
May they be near or far,
And three times three for the
Tiger's boys,
And one good old Tiga-a-a-a-a-r!"

LAFAYETTE

LAFAYETTE ENGINE

19

NEW YORK



IN 1853 No. 19 ran one of the handsomest and most powerful Philadelphia style engines ever used in the city. She was a first-class, end-stroke, double-deck engine with $9\frac{1}{2}$ " cylinders and 9" stroke, built by James Smith of New York in 1849, rebuilt and equipped with a patent running gear in 1855 by Messrs. Pine and Hartshorn. A model of this engine was displayed in New York's first World's Fair in the Crystal Palace in 1853.

This Company was organized June 25, 1792 and had a long, colorful career serving until the disbandment of the Volunteer Fire Department.

During the Draft Riots in July, 1863, a mob fired the colored orphan asylum

at Forty-Third Street and Fifth Avenue. Lafayette Engine Company No. 19 answered the alarm and upon arriving at the scene was threatened and warned that if they attempted to extinguish the fire they would be set upon. No. 19 stretched their hose in preparing to save the building, but the mob cut the hose and endeavored to break the handsome engine. Thereupon, Lafayette's boys grabbed their wrenches and spanners, sailed

into the mob and quickly dispersed them. In spite of their most heroic efforts, however, the building was totally destroyed although they were instrumental in saving the lives of a number of little colored children.

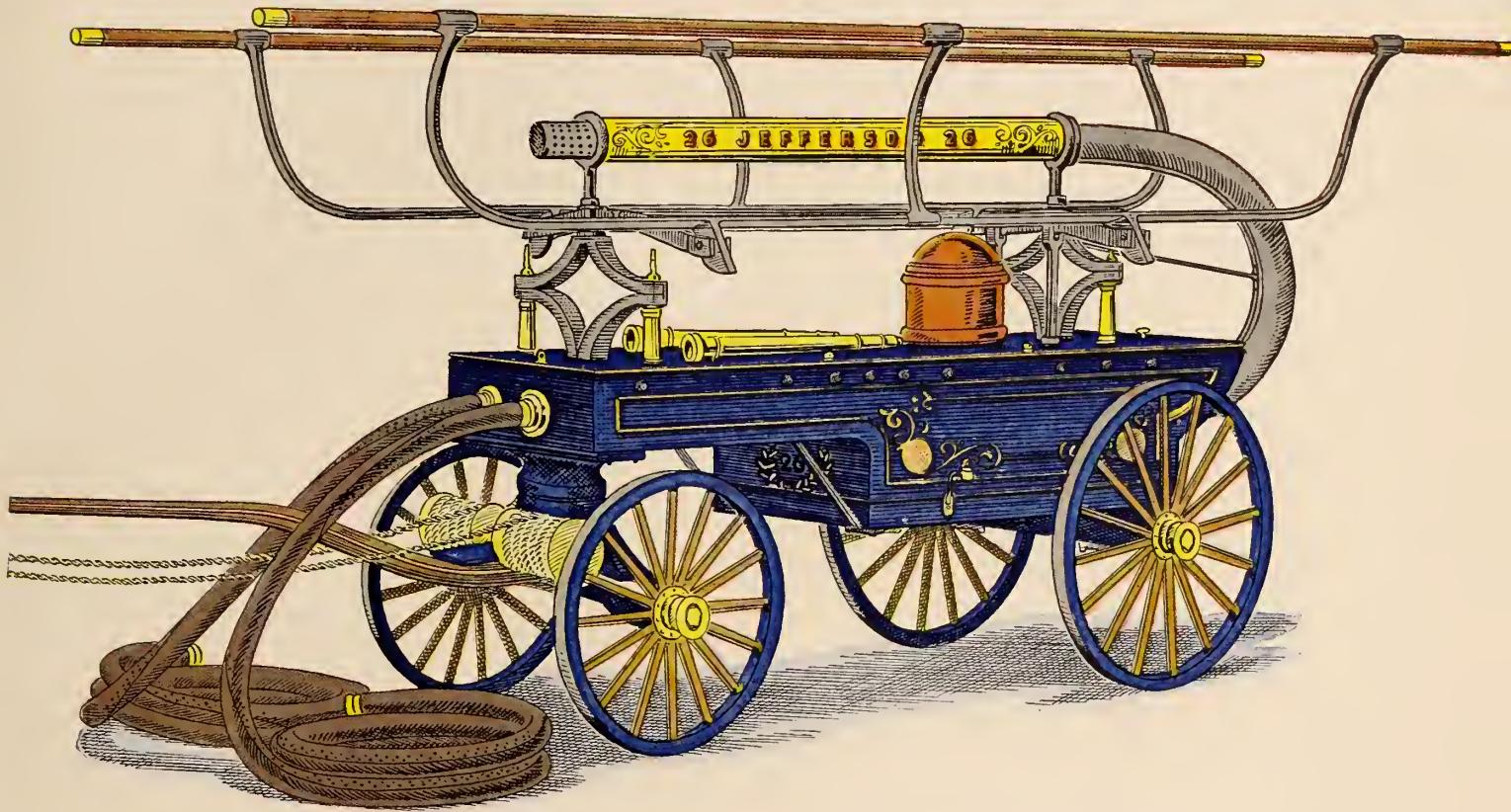


THE BLUE BOYS

JEFFERSON ENGINE

26

NEW YORK



THIS ENGINE, built in 1853, was known as a Piano or Piano Box, and had 7" cylinders and a 5" stroke. The suction hose was permanently attached to the rear of the engine and when not in use was swung up over the top and held in place by a large brass pipe. Engines equipped in this manner were known also as "Squirrel Tails." The walking beams or cross arms of the pumping device were slotted so that the leverage could be altered without changing the depth of stroke. As shown above, the brakes were folded; when in operation these could be lowered to a breast-high pumping position.

The Blue Boys, organized in 1803, got their name from their first tub engine which was painted blue and which was called the "Blue Box." The rallying and racing cry

of this Company was "True blue never fades."

This engine was one of the handsomest and one of the best geared and fastest engines of its day. So proud of her were the Blue Boys that they were constantly showing off their racing prowess to the other companies.

Their greatest rival was Engine Company No. 2. While running to a fire one night, both engines turned simultaneously into a narrow street. Running abreast, they hurled bitter epithets and challenges at each other until Excelsior No. 2, being

too crowded, struck a tree and overturned. A free-for-all fight, which lasted several hours, followed, and was the talk of the Department for days. As the result of this scrape, both companies were ordered to "turn tongue in" by the city authorities.

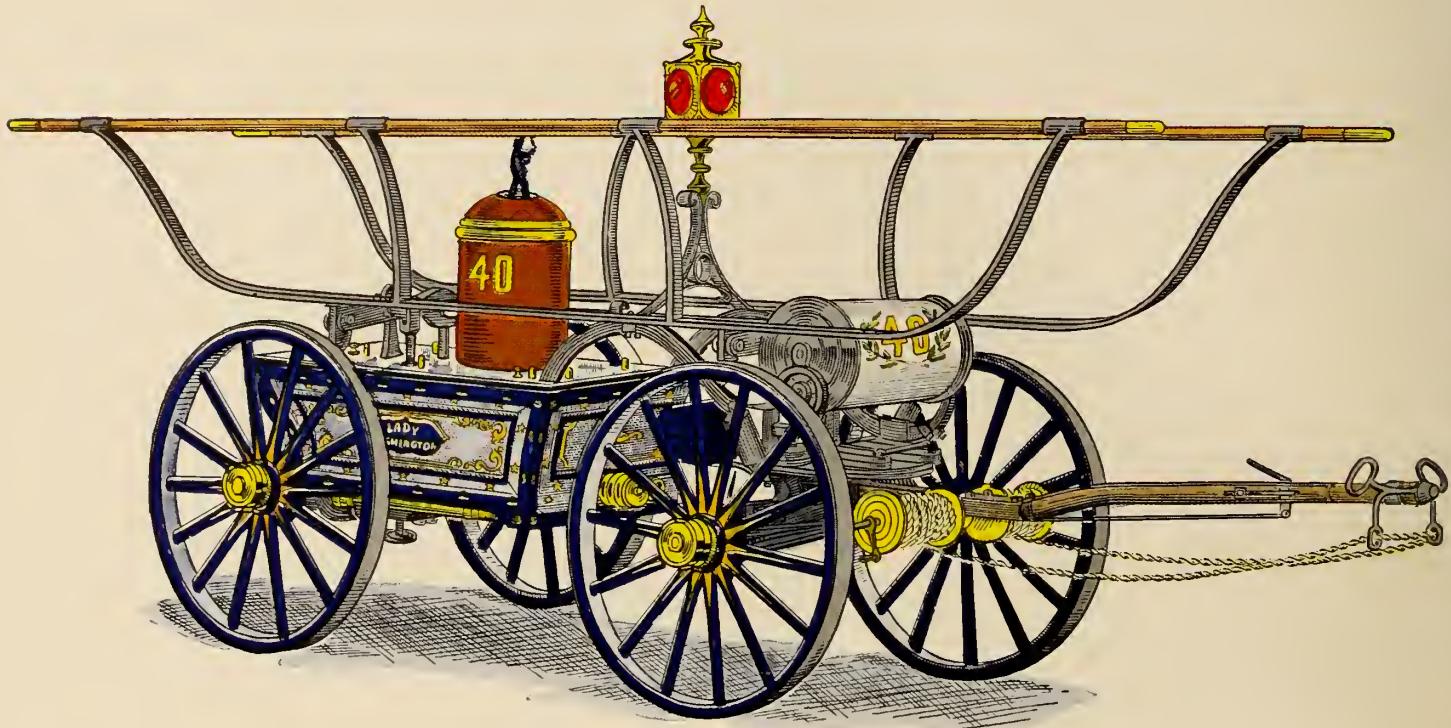


THE WHITE GHOST

LADY WASHINGTON



NEW YORK



THIS ENGINE, known as a crane-neck or piano crane-neck, had $8\frac{1}{2}$ " cylinders and a 9" stroke and was built in 1856 by W. H. Torboss. The most characteristic feature of this machine was the crane-neck structure of the body which permitted the front wheels to turn short under it.

The Lady Washington Company, organized in 1812, was made up of a lively crowd composed mostly of Center Market boys. Pride in their racing ability and the tendency to take the shortest and smoothest road to a fire often got this and other companies into difficulties with the authorities. Because of the condition of the streets, the boys often jumped the engine over the curb and ran her on the sidewalks. That this practice irritated the

citizens and was considered a menace to their lives was a matter that the Common Council could not overlook.

In reference to a resolution forbidding the companies to run on the sidewalks, however, the Firemen's Journal of May, 1853, commented as follows: "We hope more attention will be paid by the authorities to the condition of the streets. In some of our principal thoroughfares it is almost impossible to drag apparatus in the street.

Not only is there severe labor requisite for such an act, but there is also the risk of the apparatus breaking down and the danger to the men. If our streets were kept in a passable condition, the firemen would not be obliged to take the walks."

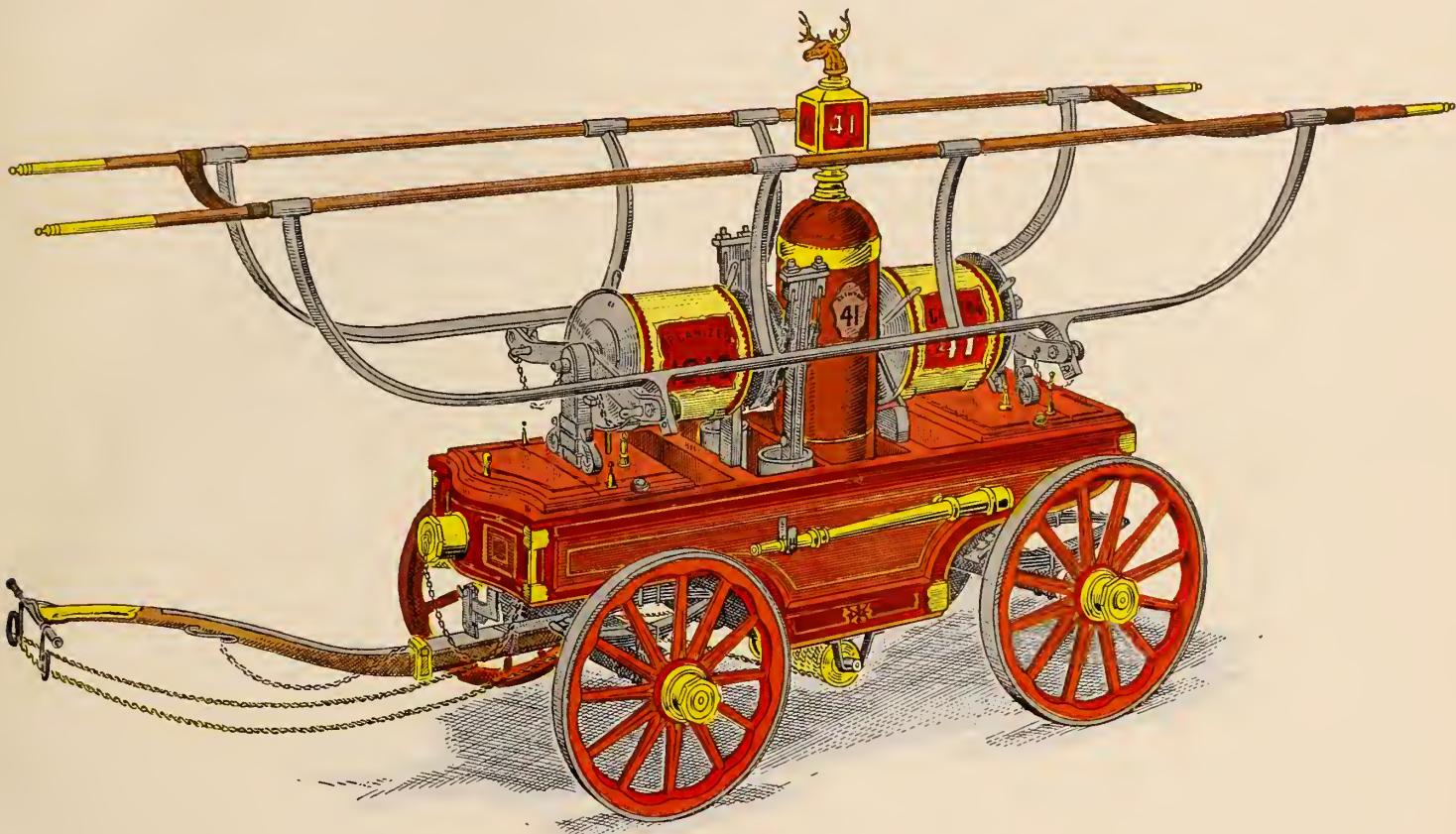


OLD STAG

CLINTON ENGINE



NEW YORK



EQUIPPED with a special patent chain capstan developed by Alfred Carson, Chief Engineer of the Fire Department, this machine was known as a Carson piano style. It was a second-class, side-stroke engine with 8" cylinder and a 9" stroke and was built in 1853 by A. Vanness of New York.

This Company, organized on March 8, 1813, was first located at Rivington and Arundel (now Clinton) Streets. In 1836 when rival factions forced Jim Gulick, a great favorite, out of the office of chief engineer, this Company with many others refused to do fire duty. They later resumed action and served until 1852 when they were disbanded for fighting.

Shortly after reorganization in 1853 the Company received the engine pictured above.

This machine was one of the most powerful in its day and took part in many playing contests. Riley's Liberty Pole at the southwest corner of Franklin Street and Broadway was the scene of many of these events. This pole, marked off to indicate the number of feet in height, showed the record plays attained by various engines of the city. The judges sat on the roof of Riley's Hotel

which stood opposite so that they might report the results more accurately. An engine of this type could pump a stream of water through 450 feet of hose and a nozzle of one-inch diameter to a height of about 110 feet.

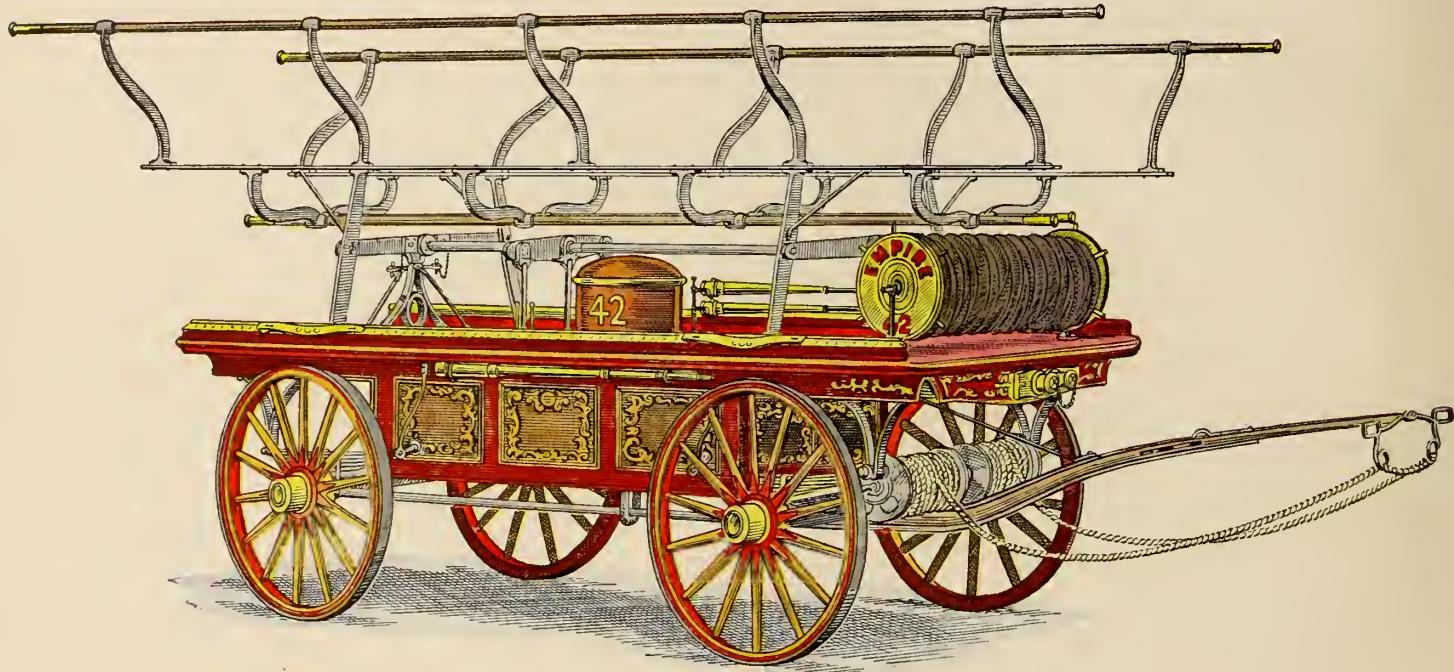


MANKILLER

EMPIRE ENGINE



NEW YORK



THIS ENGINE was built by Henry Waterman of Hudson, New York, in the 1840's, and was a first-class double-deck, side-stroke engine with $9\frac{1}{2}$ " cylinders and a 9" stroke. She was known as the "Haywagon" because of her rick-like set of double brakes which, when folded, stood high above her as shown in this illustration. She was also known as "Mankiller" because she was exceedingly heavy and difficult to pump.

This machine was so powerful that she bested in height and distance the stream of water played by one of the first successful steam fire engines to be tested in New York City.

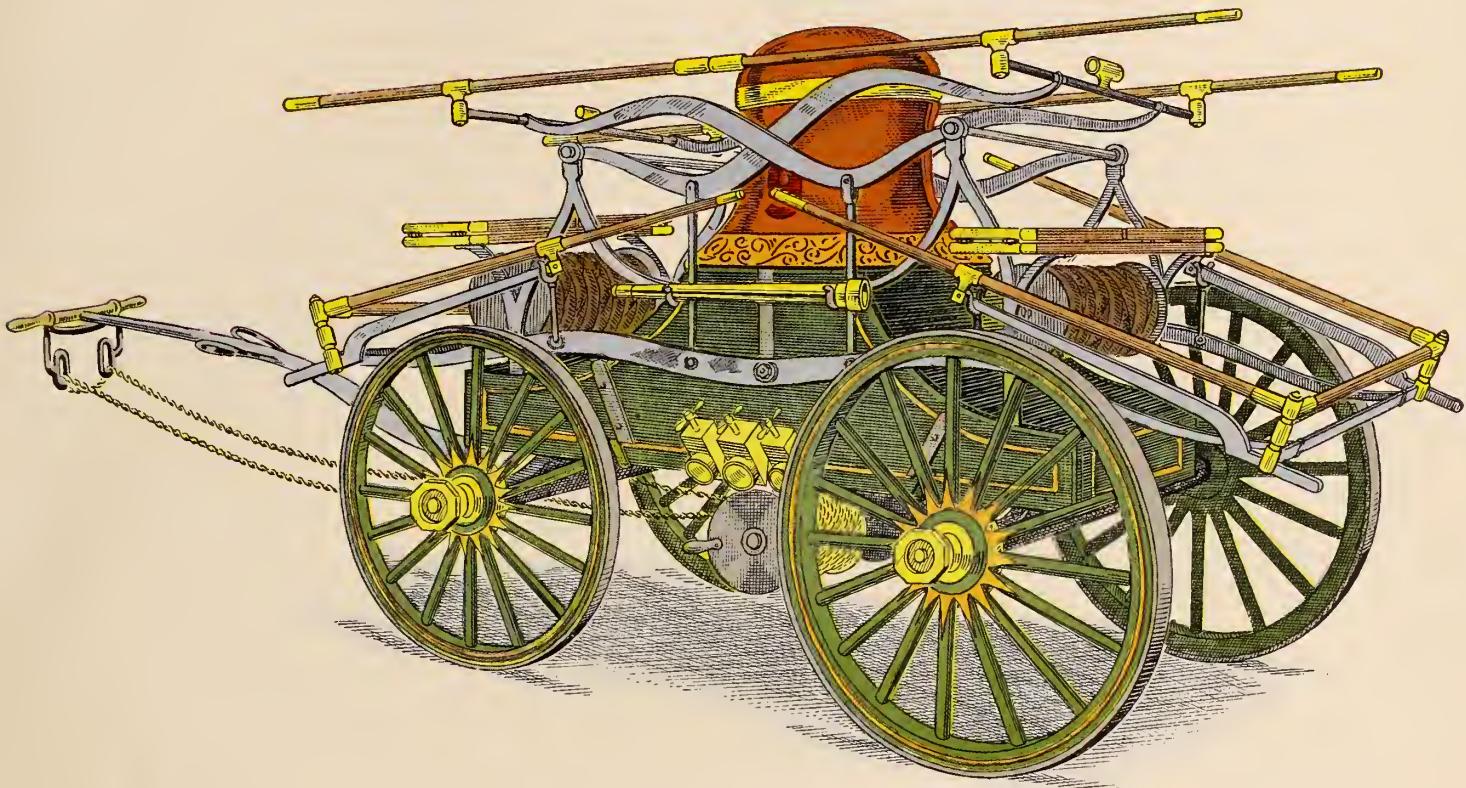
Engine Company No. 42 was known in its early years as the Floating Engine. The decked over whale boat which was furnished them by the city in 1800 was New York's first fire-boat. The works of an ordinary fire-engine of the crank or coffee-mill type were used in this vessel. The Floating Engine was propelled by sweeps or oars manned by the members of her crew, numbering twenty-four men.

This vessel was kept tied up at the foot of Roosevelt Street and was used at fires occurring on vessels and at shipyards, wharves and other waterfront property.



OLD ROCK

MARION ENGINE 9 NEW YORK



KNOWN AS A "Shanghai," this type was one of the most powerful engines used in New York. It was a first-class, double-deek end-stroke engine with $9\frac{1}{2}$ " cylinders, 4" stroke and patent capstan and its brakes were arranged for alternating action. The builder, James Smith of New York, delivered it to the city in 1859.

Engine Company No. 9 was organized before 1783 and was known at different times by the names of Bolivar, Fifteenth Ward, Dolphin, United States and Marion. The Company was noted for being continually in trouble during its earlier years and it was finally disbanded for fighting in 1854. Upon its reorganization as Marion Engine, however, they saw good

days and enjoyed the reputation of being one of the quickest and hardest working companies in the Department.

Because of the lack of dependable water supply it was frequently necessary for the hand-pumped engines to form in line, one pumping into the other. At a fire in a feed store at Eldridge and Rivington Streets, twenty-three engines with six thousand feet of hose were in line. Chief Engineer Harry Howard stated that he had seen thirty engines in

line which meant that the water was carried from engine to engine for more than a mile and a half to produce one small stream of water. Because of its great power this "Shanghai" usually had No. 1 position when working in line.

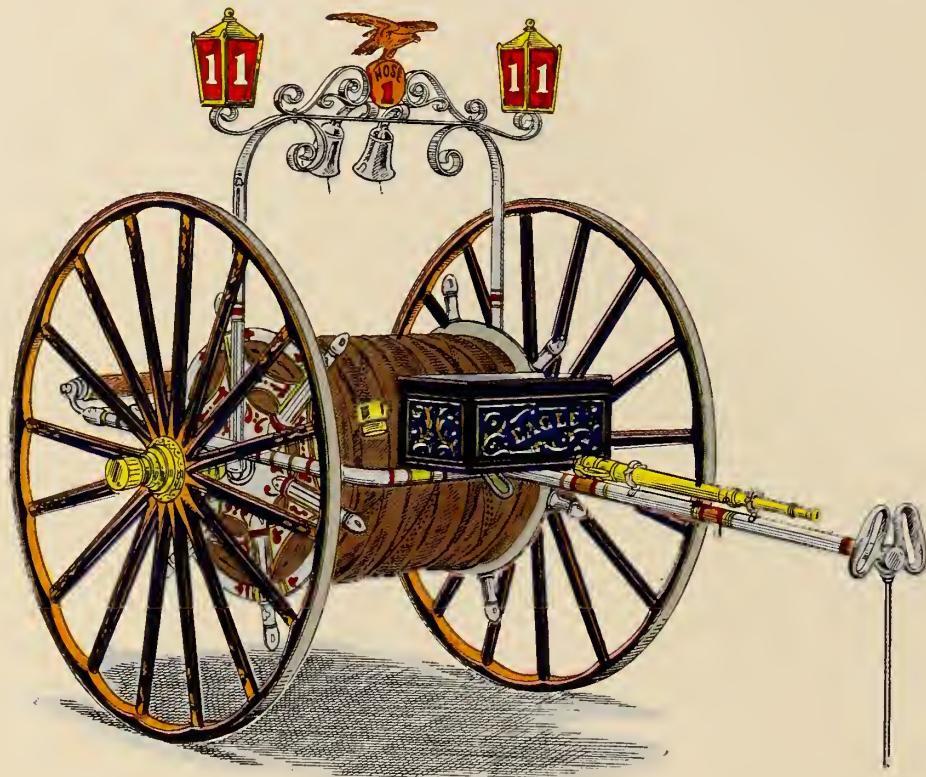


MUTTON HOSE

EAGLE HOSE



NEW YORK



THIS TWO-WHEELED HOSE REEL, known as a jumper, leader cart or tender, carried six hundred feet of hose and either could be drawn separately or hauled with an engine by attaching it to the engine's tail hook.

The Company ran a jumper until 1852 when they received a four-wheeled spider carriage built for them by Messrs. Pine and Hartshorn of New York. The new machine had rosewood reels richly ornamented with silver scroll work.

Eagle Hose Company No. 1, New York's first hose company, was organized September 7, 1812, and was one of the last disbanded by the city commissioners in October, 1865. At the last fire which they attended, their drag rope was manned not only by their own members but by members

of a number of other companies which had run in their district.

The old-time firemen were famous for their chowder and pepper-pot parties. The minute books of many of the New York companies contained numerous appetizing entries for delicacies paid for out of company funds.

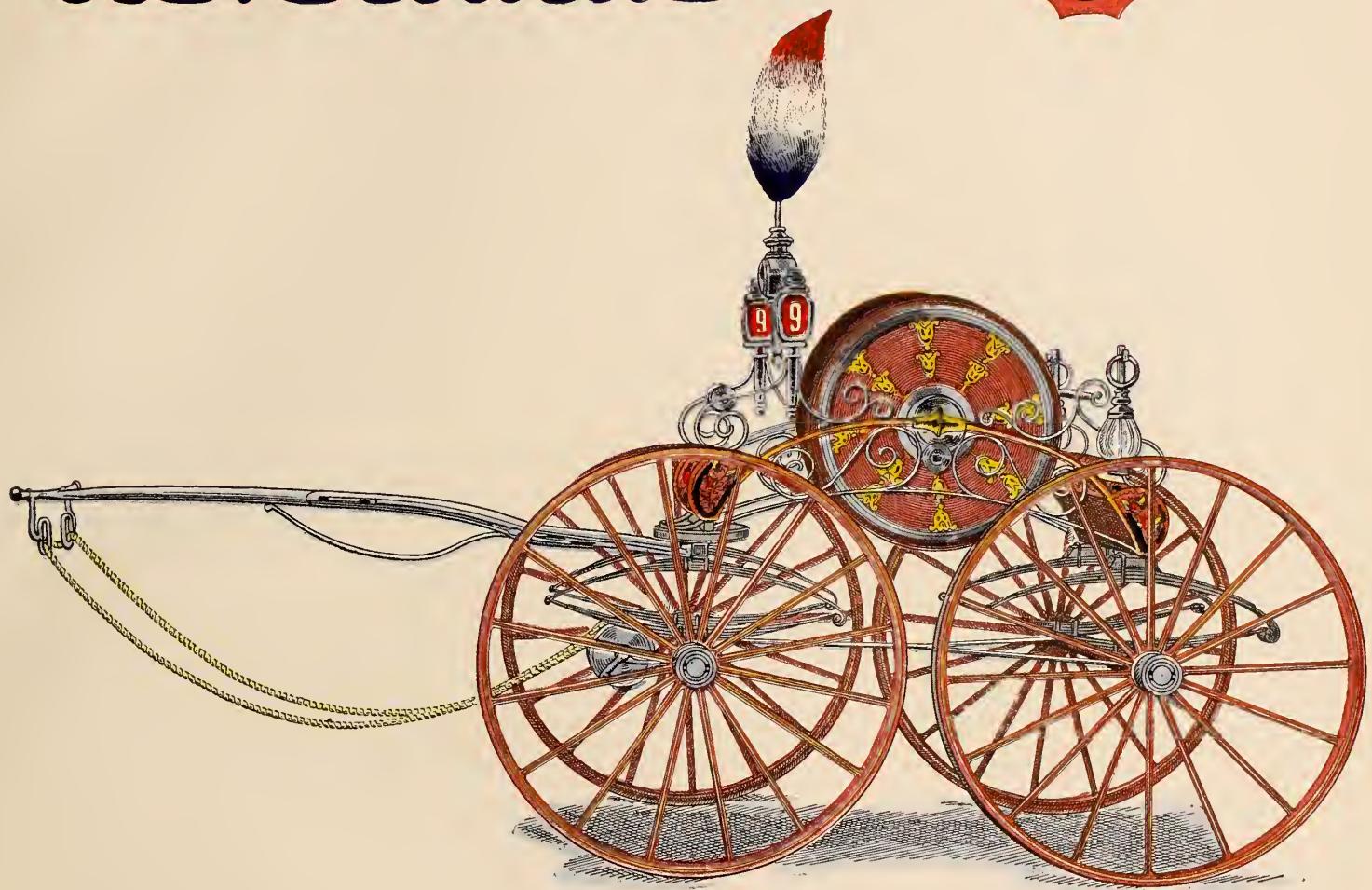
Hose Company No. 1 became popularly known as Mutton Hose in the following manner. At the close of an annual meeting, the newly-elected officers took the boys down to an old-fashioned English ale house in Madison Street. While they were eating English mutton pies, their favorite dish,

an alarm of fire sounded and out they rushed, pies in hand, to haul their machine, gasping for breath between hastily swallowed mouthfuls of mutton.



SILVER NINE

COLUMBIAN HOSE **9** NEW YORK



MESSRS. PINE AND HARTSHORN of New York built this fancy hose carriage in 1855. It carried one thousand feet of hose and was one of the most attractive in the Department. Because the strings and tongue, lamps and other mountings of this machine were silver plated, the Company became known as "Silver Nine."

To take in the hose the reel drum was turned by a series of gears operated by a winch handle. The weight of this carriage was about twelve hundred pounds. As shown here the machine sports a fancy parade plume. Columbian Hose Company was credited with having been the first to introduce bells on a hose carriage.

In the early days when water was scarce, there

occurred many a fight for the possession of a hydrant. One night two rival hose companies arriving at a fire, spotted the dim outline of a hydrant in a poorly lighted street at about the same moment. Angry disagreement between the foremen quickly led to blows and both companies soon were struggling in the darkness. The fast and furious fight was terminated when a bystander, scratching a match on the "hydrant" to light his cigar, discovered that the object for



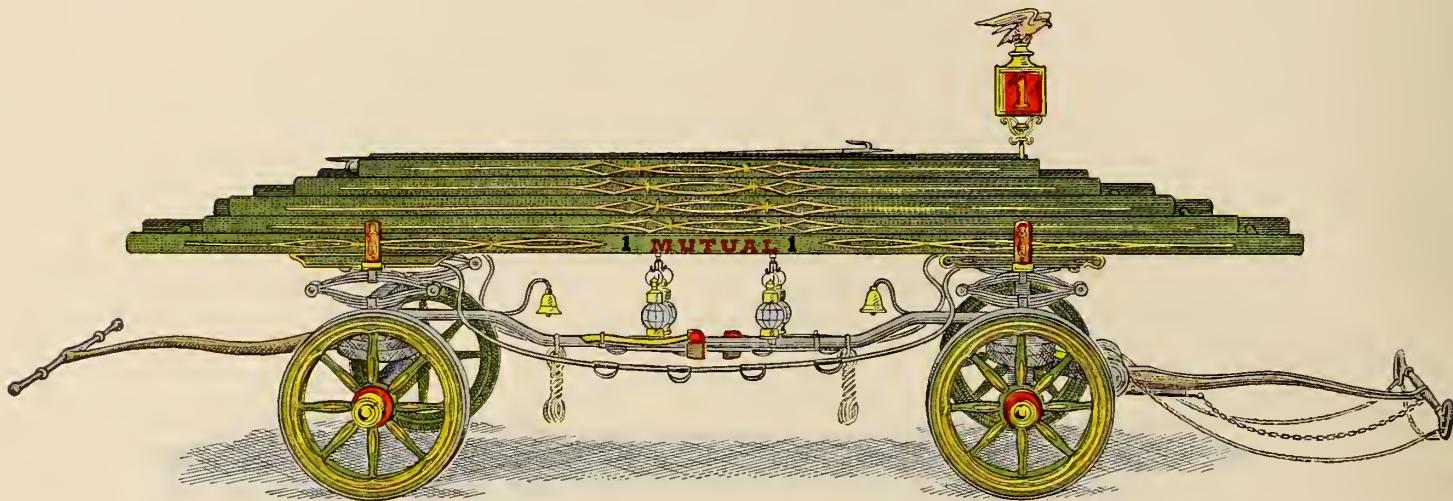
which they were contending was only a half-buried cannon used as a hitching post. As the burning building toppled to its doom, the lurid flare of flames briefly lighted up the bruised, battered and shabby faces of the men.

THE BALL CLUB

HOOK & LADDER



NEW YORK



THIS HAND-DRAWN hook and ladder truck, built in 1848, was equipped with a tiller and second "fifth" wheel or circle iron on the rear axle to steer the rear wheels. The reach or perch was made of well-seasoned hickory steamed to the shape shown. When running this truck some of the men helped to haul it by grasping the handles on the two pieces of strap-iron which flared out along her sides. When going into action the heavy signal lamp was unfastened and set aside so that the ladders could be removed.

Mutual Hook and Ladder Company No. 1 was organized in 1772 and was originally located in Fair (now Fulton) Street near Nassau St. Before trucks came into use it was the custom to have the ladders and hooks hung up on a fence in City Hall Park so that first-comers, citizens or firemen, could carry them to fires.

A horse for hauling this machine was purchased for \$88 on Nov. 8, 1832. Introduction of horse power came about after a disagreement in the Company, resulting in the resignation of so many members that not enough remained to handle the truck. Running to a fire in Broadway soon after this acquisition, Hook and Ladder No. 1 raced with Engine No. 11. In going up the hill at Canal Street the engine passed and left the truck far behind. The horse was so winded that he was of no use after that and the Company disposed of him.

The famous Mutual Baseball Club of New York was named after this Company and organized in their fire-house on June 24, 1857. In their early years the Mutuals were ranked as one of the most popular and powerful baseball clubs in the country. Many of their games were played at Elysian Fields in Hoboken, N. J.

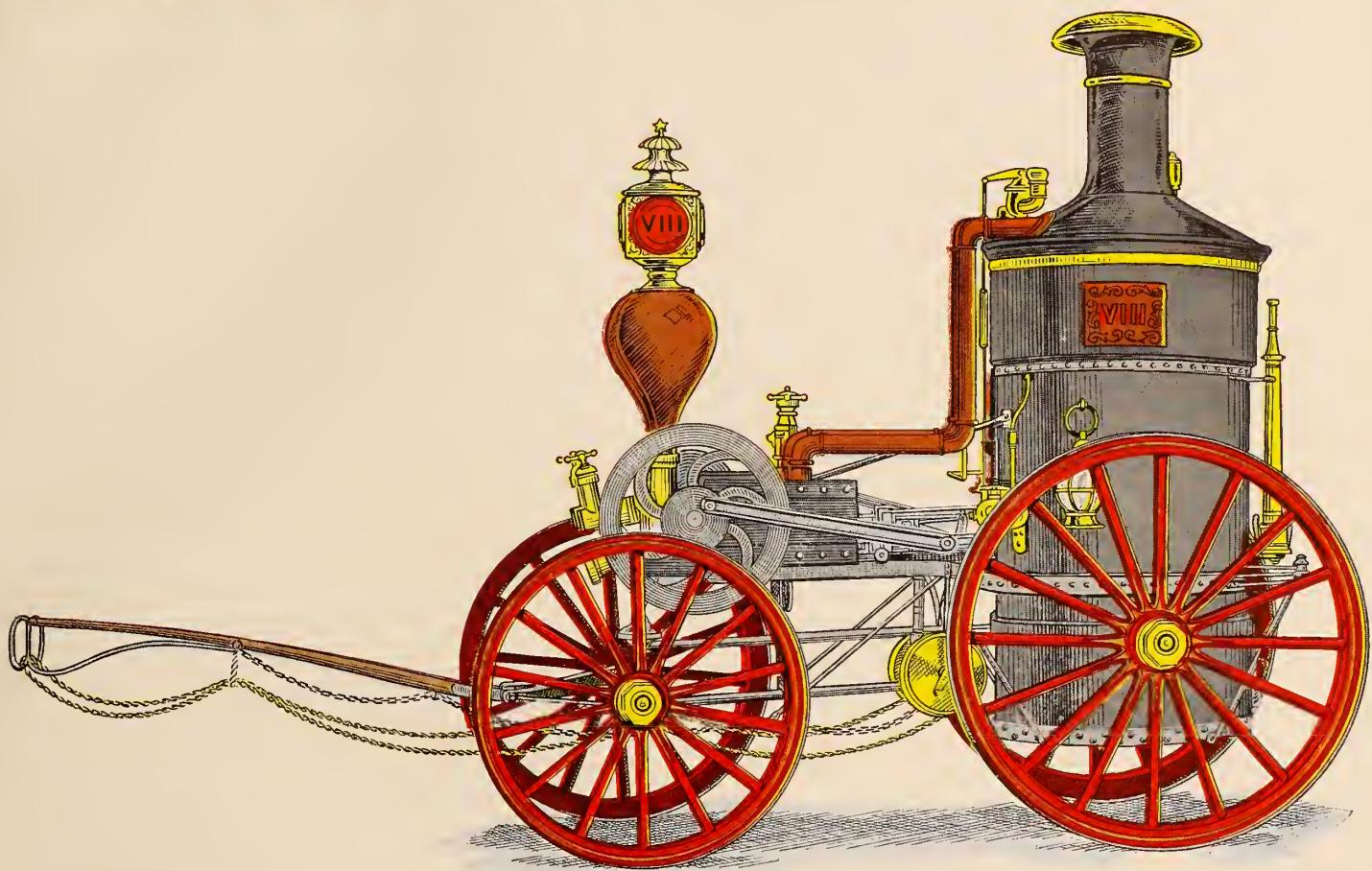


THE ELEPHANT

MANHATTAN ENGINE



NEW YORK



ALTHOUGH two steam fire-engines previously had been tried out in New York, the Elephant, an Amoskeag machine, was the first one put into regular service in the city. The apparatus was a gift from the fire insurance companies in 1859. This engine weighed 5,600 pounds, and was considerably lighter than earlier steam engines used elsewhere because of the substitution of steel and brass for iron in its construction.

The use of steam fire-engines caused a lot of ill feeling among the other fire companies. This was demonstrated by the many occasions at fires when the hose companies would refuse No. 8 a supply of water. The advantages of steam, however, were soon recognized and other companies in the Department made applications to the Corporation for them.

Manhattan Engine Company No. 8 was the last company established before the Revolutionary War. Little is known of this Company until 1783, when they were reorganized, except that their first machine lay near the sand pit at the foot of what is now Maiden Lane, at one time known as Shoemaker's Pasture. During its long period of service, this Company ran a number of engines including an old goose-neck, a Philadelphia, and piano style of engine.

In the Tricennial Parade of 1859 the Elephant was the greatest novelty in the procession. It was drawn by members of the Company and accompanied by its tender, a beautiful four-wheeled wagon, intended to carry wood and hose. The appearance of the steamer was very fine and attracted universal attention.





The TOOL BOX -



THE VOLUNTEER FIREMAN took a wonderful pride in his engine. Sunday morning was the usual time for cleaning the machine. As many of the members and runners of the company who could, would gather at the engine-house. The axes were taken down, ground if necessary, cleaned and polished. The signal lamps and torches were scoured likewise and filled with oil. Peter Warner, Foreman of Engine 23, stated that in the early days his company was allowed a gallon of oil a month by the Corporation for torches, signal lanterns and ordinary lamps. Additional oil was paid for by the company. There was great bustle in polishing the silver or the brass, scrubbing the leader jacket or leather apron which covered the hose reel, oiling and greasing the machinery and wheels, straightening and rewinding the ropes and performing with tender hands countless other duties that the firemen's affection for "the old gal" might dictate. His engine was always the *best* engine in the eye of the old vamp.

Illustrations on this page show signal lamps, including that of Independence Hose Company No. 3, and a brass torch



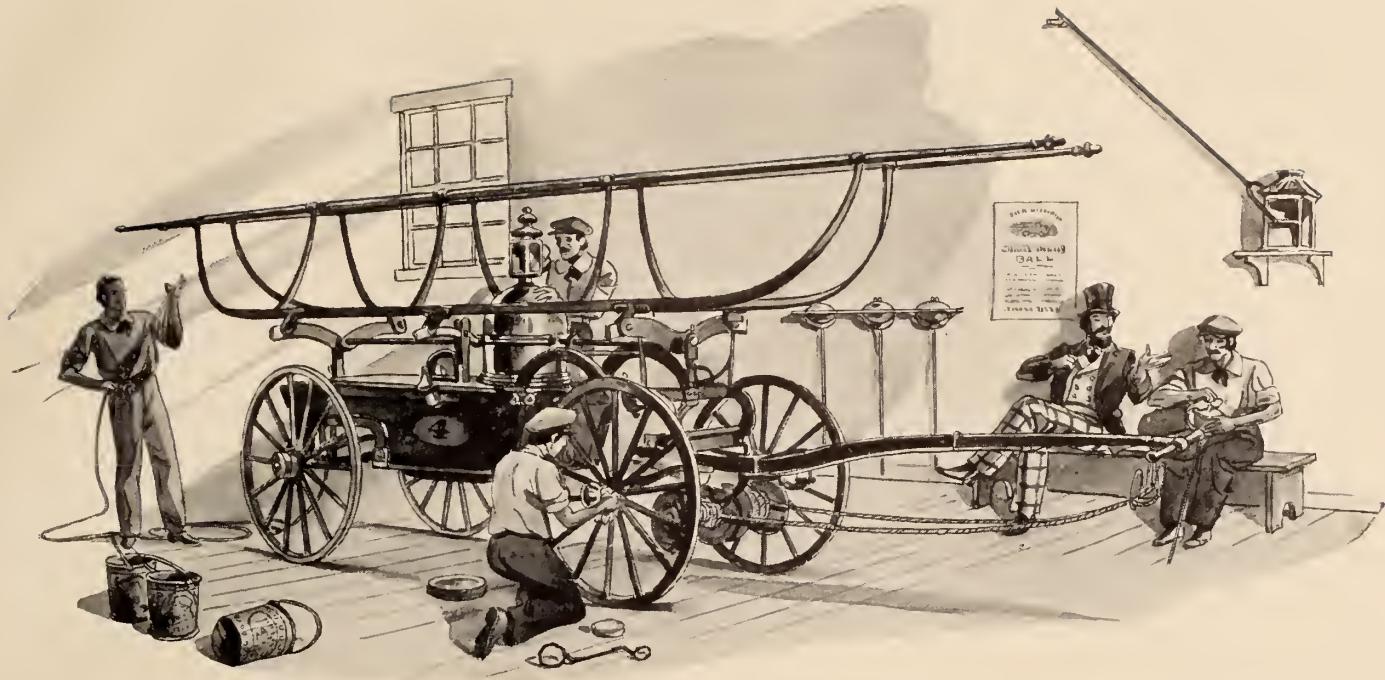
of Eagle Engine No. 13, dated 1823.

The smallest hatchet was used to chip ice that formed on the hydrant and on the engine in freezing weather. Bills, hooks and pikes of various designs also were included among the tools of the fireman's trade.

From the earliest times, Leader Committees, composed of several members of each company, were appointed to look after the engine and engine-house. The duties of this committee being burdensome, its individuals were frequently changed so that all members of the company would share in this work. Carelessness with the engines was looked upon with great disfavor by the firemen and those responsible were usually severely disciplined.

In July, 1817, the minute book of Engine 21 states that the Leader Committee for that month had not properly performed its duty. The engine was found to be in very bad order; the tail rope, which was put away wet, was covered with mold as was also the leather on the engine. The front box had been wetted repeatedly and its contents of wrenches and other tools were badly rusted. The committee of another com-





pany was reported for neglect of duty in not greasing the wheels of the engine and leader cart and leaving the machinery wet and dirty.

Although the City Corporation made certain provisions regarding repairs for the engines and other machines, most of the expense involved was undertaken by the volunteer firemen themselves.

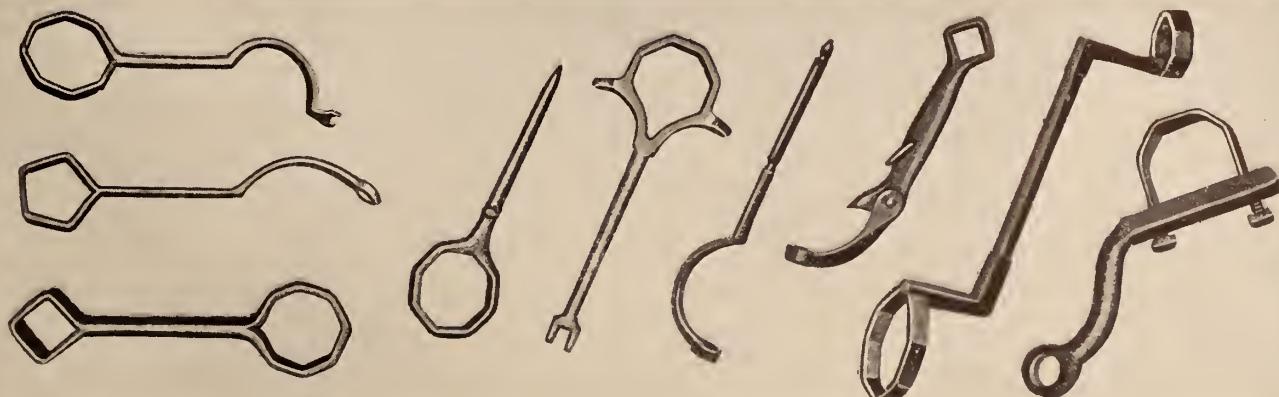
The Common Council passed an ordinance in 1833 directing that two persons were to be appointed to each fire-engine and hose company, and to each hook-and-ladder company, whose duty it should be to keep all the apparatus of the company in complete working order, to assist in conveying the apparatus to fires, working it when there and in returning it to the house. They were also "to wash and dry the hose and put in neat order all the apparatus, so as to be ready for immediate use, taking care, however, in no case to

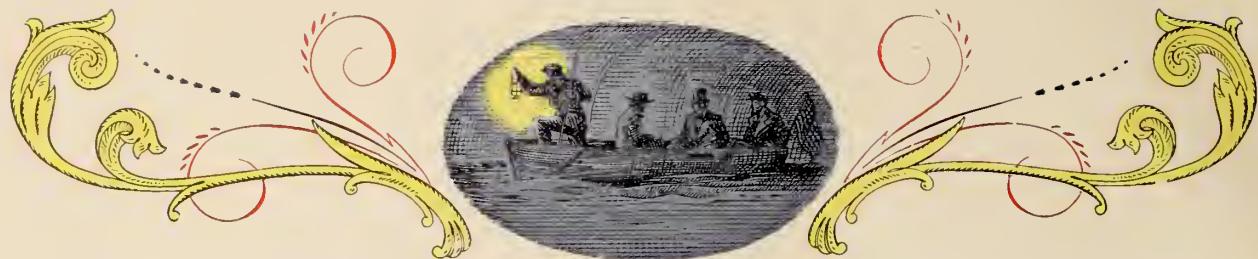
meddle with the works of an engine." In 1839 the firemen themselves were again required to wash and clean their engines and it became customary after this for companies to hire men to clean the apparatus, paying for these services out of their own funds.

The group of tools appearing at the bottom of this page are hose spanners and half-spanners, hydrant wrenches and engine-wheel wrenches. In the earlier days no tool box was complete

without a bed key, one type of which is shown at the left. These were used to unbolt beds, usually considered the most valuable piece of furniture in the house, so that the sections might be carried out of burning buildings.

"But we must not forget the vanguard of our line,
With bags, buckets and bed-screws in order so fine;
All armed and equipped, see them rush through the flame,
'Protection' their motto, protection their aim."





Water! Water!~

BEFORE the opening of the Croton Aqueduct in 1842 New York's water supply was one of the city's most serious problems. The pumps which were placed over wells and cisterns scattered throughout the city had to be relied upon entirely for public consumption as well as fire-fighting use. Many of the wells, especially those in the lower part of the city, furnished poor, brackish water. There were, however, a number of excellent springs, the crystal-clear waters of which were commonly known as "tea water." This water, a principal commodity of barter in the city, was sold through the streets for a cent or a cent-and-a-half per pail. In time the "tea watermen" were compelled by act of the Common Council "to assist in supplying the engines in case of fire."

New York's first attempt at organizing a more dependable system of water supply resulted in the forming of the Manhattan Water Company toward the close of the 18th century. Elaborate plans to pipe water from Harlem were never carried out, the Company merely erecting a reservoir and pumping water into it from wells sunk in the vicinity. This water, what there was of it, was distributed by means of mains in the form of hollowed-out logs. A cross-section of one of these is shown here. It was from the large wooden plugs that were used to close the taps in these wooden pipes that the present day term of "plug" or "fire-plug" was derived in referring to hydrants.

The first hydrant, which was

covered by an octagon-shaped wooden enclosure held together by iron straps, was located in the front of the Frankfort Street home of George E. Smith, a member of Engine Company No. 12, in the year 1817. The Manhattan's water system never being satisfactory, this hydrant saw but little use, although it was the start of the hydrant system in the city.

Before fire-engines were equipped with suction, bucket lines had to be formed to serve the engines with water from the pumps or, wherever

possible, the feeder-box of the engine was placed directly under the pump spout or trough. The minutes of Engine Company No. 13 for May 9, 1809, record that "The engine (at 4:30 A.M.) was taken to the place in good time and placed under the Old Manhattan Pump, when we played with good Effect

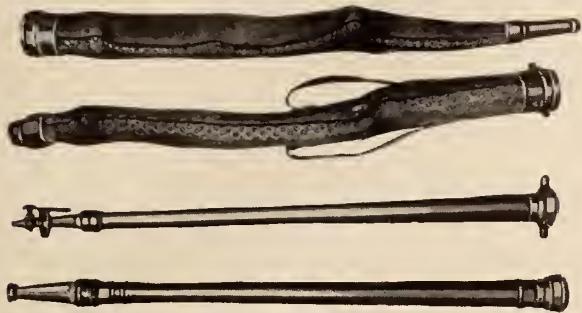
for at least three hours—the Fire was truly alarming, being principally Wooden Buildings, did great Execution among them."

Obviously, New York's rivers were the best source of water for the fire-engines, but the distance of this supply to fires often made it necessary for a number of engines to form in line. Engines with greatest suction power were placed on the docks or banks of the rivers. The stream was kept up by one engine pumping into another and was exhausting work for a great number of men to supply one or two small streams of water.

The introduction of Croton water was a great factor in increas-



ing the effectiveness of the Fire Department. When the first water was admitted to the Aqueduct on June 22, 1842, a small boat carrying four persons was carried down by the current and completed her singular voyage from Croton to the Harlem River almost simultaneously with the first arrival of the water. The voyage of this



tiny vessel, known as the "Croton Maid," was hailed with much enthusiasm and it was presented to the Fire Department as the symbol of the dawn of a new day in fire fighting.

The first nozzles or pipes used on the engines were attached directly to the suction pipe, often called the "goose-neck," which protruded from the top of the air-compression chamber and were controlled by firemen mounted on the body. These frequently measured six or seven feet in length and were made of brass or copper and brass. After the introduction of hose which permitted the fire fighters to get closer to the flames, the nozzles were shortened. Nozzles of riveted leather with brass or bronze tips were also used. For the hand fire-engines the apertures of the nozzles were necessarily small, averaging from seven-eighths to one-and-a-half inches in diameter. The comparatively thin stream of water thus produced was dissipated into spray if played for any distance in the wind.

While leather hose was developed for use in Holland as early as 1672 and was in use down through the years, it was not satisfactory. The seams of the hose were sewn like the leg of a boot and any great pressure caused them to open and leak. It was not until 1808, when Messrs. Sellers and Pennock of Philadelphia introduced hose held together by rivets of copper wire that leather hose played an effective part in the extinguishment of fires.

The standard adopted by the best fire departments called for hose of pure oak-tanned leather known as "overweight," the average weight of

which was not less than twenty-two pounds to the side. The seams were double riveted with twenty-two copper rivets of number eight wire to the running foot. The splices were made with thirteen rivets of number seven wire. The hose, when finished, with carrying loops and rings, weighed approximately eighty-four pounds for each fifty feet, exclusive of the metal couplings. Hose of this type was supposed to withstand a pressure of not less than two hundred pounds to the square inch. While cowhide was generally employed in the manufacture of leather hose, far-western fire-engines were often furnished with hose made of buffalo hide.

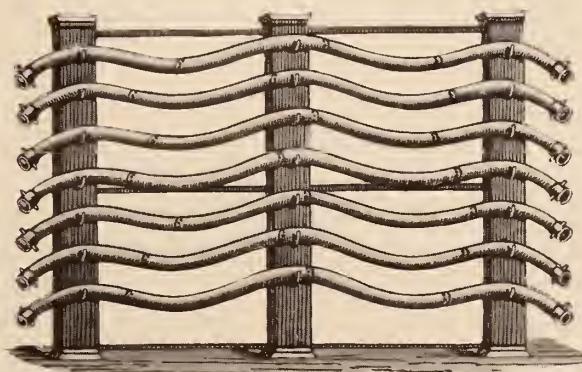
The tendency of leather hose to crack made it necessary to give it constant care. After use it was dried and greased or oiled to keep it flexible. The companies were constantly warned against the use of "slushes" or cheap "leather preservatives." Beef tallow mixed with neat's-foot oil applied warm before the hose was quite dry was generally considered to be the best treatment.

When the New York engines were equipped to draw water, suction hose was made of short metallic cylinders placed end to end and covered with canvas or leather or were made from similarly covered stout spiral wire, in order to prevent collapse.

On the occasion of the opening of the Croton Aqueduct the opening verses of the following poem were read, which were afterward set to music and sung in every engine-house in New York.

Water leaps as if delighted
While her conquered foes retire;
Pale Contagion flies affrighted
With the baffled demon Fire.

Round the aqueducts of glory,
As the mists of Lethe throng,
Croton's waves in all their glory
Troop in melody along.



RACK FOR DRYING LEATHER HOSE



"Claim your BUCKETS!"



THE first fire buckets used in New York were made by the shoemakers of the city and were hand-sewn of the best tanned sole leather.

Until suction for the engines and leather hose came into practical use, the water supply had to be conveyed by buckets which the residents were required by law to keep available in their houses.

These were generally hung at the front of the house so that when an alarm of fire was sounded and the cry taken up, "Throw out your buckets," the firemen and civilians racing to the fire could readily pick them up.

When the nearest source of water was located, two lines of firemen and citizens were formed in order to douse the fire or to supply the engine. Women and boys frequently assisted in this duty, taking places in the line returning empty buckets to the water supply while the other line of men passed up the filled buckets. Any person attempting to break through these lines during a fire usually found himself stretched upon the ground drenched with several buckets of water.

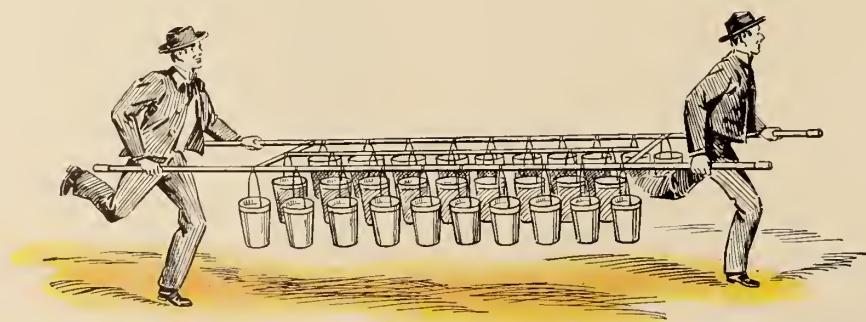
When the fire was out (more likely burned out), the buckets were loaded

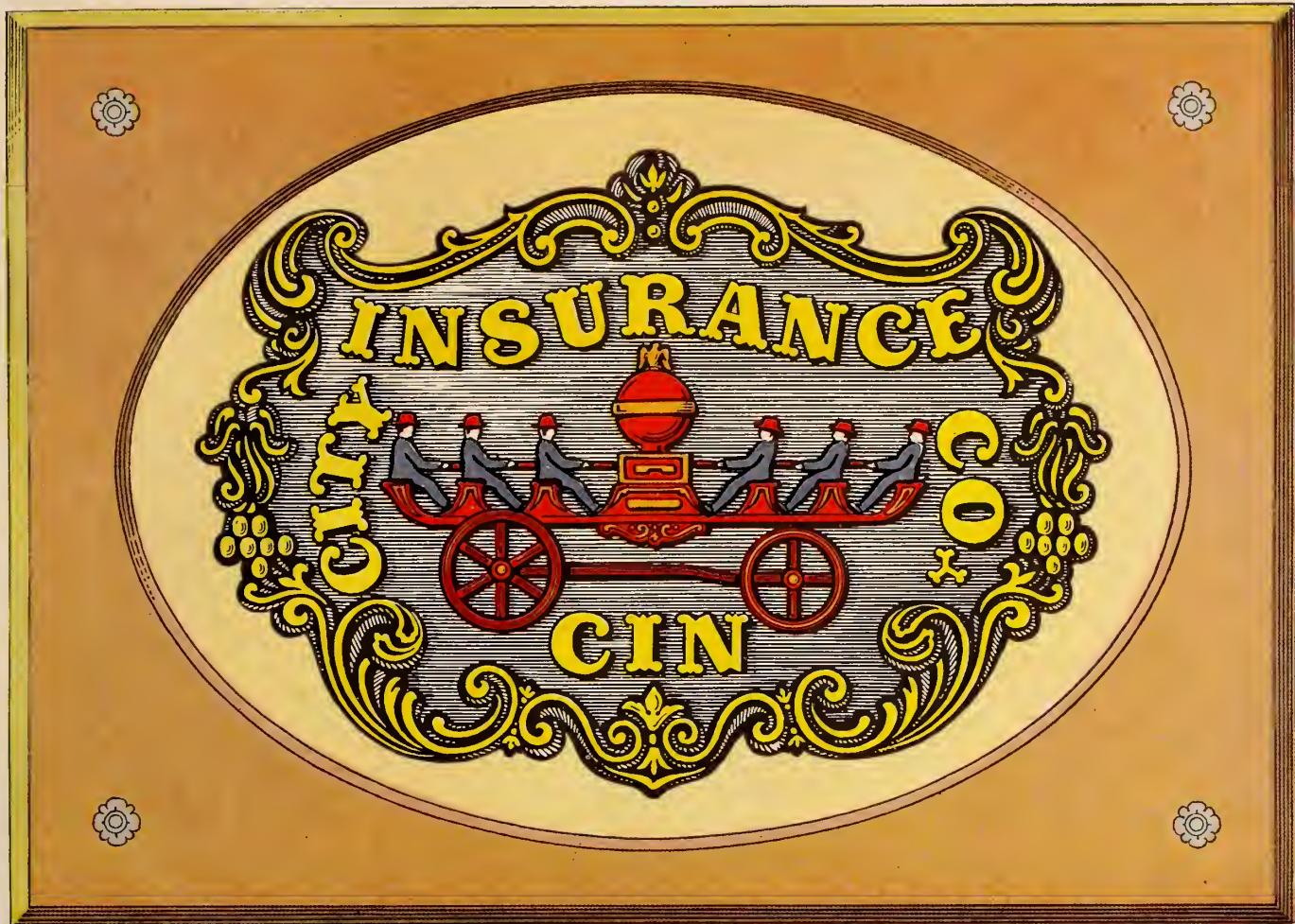


into a cart and carried to the City Hall and the Watchmen sent out to announce that the buckets were ready to be returned to the owners by the familiar cry, "Claim your buckets!"

Until 1795 private citizens furnished most of the fire buckets, but it was found that this system had become unsatisfactory through neglect. Buckets were frequently used as receptacles for all sorts of things. There is a story of one individual who made his buckets the depository for beans. After carrying his buckets to a fire he, forgetting the beans, emptied them in undue haste into the pumps, making the engine useless.

The city later undertook to supply buckets, and as an improvement, each engine-house received two poles long enough to carry a number of buckets. As may be seen from the specimens pictured here, buckets were made in various shapes and sizes. Their capacity as fixed by law, however, varied between $2\frac{1}{2}$ and 3 gallons. Fire buckets were usually marked with the name, initials or number of the owner. Many were emblazoned in oil paints with coats-of-arms, portraits or other insignia.





Fire MARKS AND Fire INSURANCE

DR. NICHOLAS BARBON, son of the famous Praise-God-Bare-Bones of Cromwell's Parliament, is given credit for having organized the first fire underwriting plan. In 1667, following the great London Fire of 1666, he opened an office in London for the purpose of insuring buildings against fire. After operating for some time under the name, "The Insurance Office at the backside of the Royal Exchange," the Company became known as the original "Fire Office."

The earliest mention of fire marks was in 1682 when the "Fire Office" issued a badge showing a Phoenix rising unscathed from the flames. From this symbol the "Fire Office" was colloquially known as "The Phoenix" and in 1705 it officially assumed that name.

The earliest issue of the "Phoenix Company" had the word "Protection" below the bird, as

shown by figure 6, Page 36. Later issues had the word "Phoenix" below the emblem.

In 1708, Mr. Povey's "Exchange House" organized a number of able-bodied men of different trades; upholsterers, carpenters, smiths, etc., capable of removing with skill and dispatch, merchandise and household goods from burning buildings bearing "Exchange House" fire marks. Thus was formed the idea of each insurance company organizing its own fire-fighting brigade.

Fire marks, usually affixed to the house fronts out of reach of pilferers, were used as guides by the fire-brigades. If the burning building was not insured by a brigade's office and the fire in no way endangered one of its own risks, the firemen frequently left the scene of the fire or sat down to enjoy the fun. It was customary to refuse assistance where burning prop-

erty bore the fire mark of another fire office.

The brigades of the first companies consisted of firemen and watermen wearing badges on their arms to show their right to act, and which also protected them from the Press Gang.

Many of the earlier fire marks were remarkable for their careful design and finish. The first ones were of lead and bore the insurance policy number, usually punched into them by hand. Some of the lead marks were cast; others were beaten out of sheet lead over a hard metal die. Between 1780 and 1800 the thin copper mark appeared with the policy number painted upon it and those of zinc also were introduced. Terra cotta and stone marks were used but rarely, some of

them being built into the walls of the edifices they protected. During the interval between the years 1810 and 1820 iron marks appeared. Some of these, cast from sand molds, were characterized by flat backs; others, cast from match molds, were characterized by concave backs. Most of the iron marks bore painted numbers, although a few had the numbers punched into the metal. Fire marks of pewter, porcelain and glass have been noted, but are extremely rare. There is one porcelain mark in this collection.

Gradually the fire mark in Great Britain ceased to be known as such and evolved into the fire plate bearing no number. It was really an advertisement and served no useful



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No. 1. Lead—Hand-in-Hand Fire and Life Insurance Society, London, Org. 1696. Merged 1905. **No. 2.** Lead—Newcastle-upon-Tyne Fire Office, Newcastle-upon-Tyne, England. Org. 1783. Merged 1859. **No. 3.** Lead—Hibernian Fire Insurance Co., Dublin, Org. 1771. Merged 1839. **No. 4.** Lead—Sun Insurance Office, Ltd., London, Org. 1710. Still active. **No. 5.** Lead—Kent Fire Insurance Co., Maidstone, England, Org. 1802. Merged 1901. **No. 6.** Copper—Phoenix Assurance Co., Ltd., London, Org. 1782. Still active. **No. 7** Lead—Friendly Insurance Society of Edinburgh, Scotland, Org. 1720. Merged 1847. **No. 8.** Lead—Westminster Fire Office, London, Org. 1770. Still active.

purpose as far as fire protection was concerned.

There has been considerable superstition concerning the fire mark. When a wave of ineendiariism swept an English farm district in 1830, notice was sent abroad that all farm property insured with the "Atlas" should have the "Atlas" mark affixed. This resulted in the superstition that property so marked could not burn.

In 1842 a foreign agent of the "Sun Fire Office" placed a clause in all policies requiring insured parties to use its mark. As an explanation he wrote, "There appears to be some superstitious feeling connected with the use of the 'Sun Mark,' and it seems that it is considered as a protection in various ways by the country

people. In order to protect the marks from the weather, they frequently surround them with a little wooden frame, and in some districts of Silesia, people may be seen kneeling to the figure of the Sun, under the idea that it is dedicated to holy purposes. I believe that the Office cannot be prejudiced by feelings of this sort among an innocent people."

The largest group of British and foreign fire marks in America is included in the Smith Museum collection. A few of the earlier marks issued in the British Isles are to be seen on Page 36.

After the fire mark was discontinued generally in Europe and in America, it remained in use in other parts of the world. In China it is still in de-



No. 1. Lead—Philadelphia Contributionship for the Insurance of Houses from Loss by Fire, Philadelphia, Org. 1752. Still active. **No. 2.** Cast iron—United Firemen's Insurance Co., Philadelphia, Org. 1860. Still active. **No. 3.** Cast iron—Fire Association of Philadelphia, Philadelphia, Org. 1817. Still active. **No. 4.** Lead—The Mutual Assurance Company for the Insurance of Houses from Loss by Fire, Philadelphia, Org. 1784. Still active. **No. 5.** Cast iron—Guardian Fire and Marine Insurance Co., Philadelphia, Org. 1867. Ceased business 1871. **No. 6.** Cast iron—Hope Mutual Insurance Company of Philadelphia, Org. 1854. Ceased business 1860. **No. 7.** Copper—Insurance Company of North America, Philadelphia, Org. 1792. Still active. **No. 8.** Cast iron—Lumbermen's Insurance Co., Philadelphia, Org. 1873. Still active.

mand by Chinese policyholders. The Home Insurance Company, which operates in China through the American Foreign Insurance Association, issues the plate shown in figure 2, Page 43.

The only fire mark that the Providence of Washington ever issued was for use in Puerto Rico where the natives would not accept insurance on their property unless the issuing company furnished them with a fire mark.

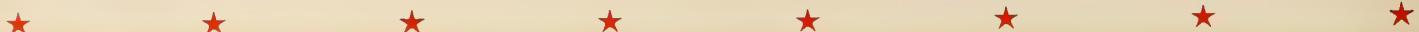
While the Friendly Society of Charleston, S.C., founded in 1736, seems to have been the first fire insurance company organized in America, it was not until the forming of the Philadelphia Contributionship for the Insurance of Houses from Loss by Fire, in which Benjamin Franklin

took part in 1752, that fire marks came into use in America.

The first recorded mark in America was of terra cotta but no specimen has ever been found.

Just one year before John Stow was called upon to recast the Liberty Bell, he made one hundred fire marks for this company. This design, known as the "Hand-in-Hand," shown in figure 1, Page 37, was cast of lead and mounted on a wooden shield. While these marks are rare, a number of issues are included in the H. V. Smith collection.

Another much-sought mark is that of the Mutual Assurance Company for the Insurance of Houses from Loss by Fire, established in Phila-



No. 1. Cast iron—Baltimore Equitable Society, Baltimore, Org. 1794. Still active. **No. 2.** Cast iron—Mutual Insurance Company of Washington County, Hagerstown, Org. 1845. Changed name 1935. **No. 3.** Cast iron—(replica) Firemen's Insurance Company of the District of Columbia, Org. 1837. Still active. **No. 4.** Cast iron—Firemen's Insurance Co., Baltimore, Org. 1825. Ceased business 1904. **No. 5.** Cast iron—Associated Firemen's Insurance Co., Baltimore, Org. 1847. Re-insured 1899. **No. 6.** Painted on wood—Mutual Fire Insurance Company of Frederick County, Frederick, Maryland, Org. 1843. Dissolved 1899. (Design was trade mark of this Co., but issuance unverified.) **No. 7.** Cast iron—United States Insurance Co., Baltimore, Org. 1833. Failed 1845. **No. 8.** Cast iron—Guardian Mutual Fire Insurance Co., Pittsburgh, Org. 1904. Ceased business 1906.

adelphia in the year 1784. The green tree became the mark of this Company in an interesting manner. From a theory of Benjamin Franklin's that green trees attracted lightning as well as interfered with the fighting of fires, the "Philadelphia Contributionship" of which he was a director refused to insure property exposed to such arboreal hazard.

As comparatively few unexposed properties were left uninsured in Philadelphia by the time the "Mutual Assurance" opened its books for business, they determined to face the issue by adopting the green tree as a symbol of their willingness to insure all such property. Figure 4, Page 37, shows one of the oldest of a number of specimens.

Other extremely rare marks are those of the Mutual Insurance Company of Charleston, S.C., established in 1798; the Union Insurance Company, also of Charleston, which was formed in 1807; the Hope Mutual Insurance Company of Philadelphia, established in 1854, and the Baltimore Equitable Society, organized in 1794.

Variants in design appear in marks issued at different periods and in a number of cases the design and metal used were completely changed.

There are so many variants of the Fire Association marks, a specimen of which is shown in figure 3, Page 37, that it is believed the slight changes in design were effected so that the fire companies making up the Association could iden-



No. 1. Cast iron—Firemen's Insurance Co., Pittsburgh, Org. 1831. Failed 1845. **No. 2.** Cast iron—Pittsburgh Navigation and Fire Insurance Co., Pittsburgh, Org. 1832. Re-insured 1845. **No. 3.** Cast iron—Associated Firemen's Insurance Co., Pittsburgh, Org. 1850. Ceased business 1930. **No. 4.** Cast iron—Fire Department Insurance Co., Cincinnati, Org. 1837. Ceased business about 1855. **No. 5.** Cast iron—City Insurance Co., Cincinnati, Org. 1845. Ceased business 1849. **No. 6.** Cast iron—Penn Fire Insurance Co., Pittsburgh, Org. 1841. Ceased business 1845. **No. 7.** Cast iron—Montgomery County Mutual Fire Insurance Co., Dayton, Org. 1844. Still active. **No. 8.** Cast iron—Eagle Insurance Co., Cincinnati, Org. 1850. Re-insured 1894.

tify their own marks from those issued by other members of the Association. The Firemen's Insurance Company of Baltimore, also originally organized by the firemen of the city, had variants identified by the number of spokes in the wheels and in the different arrangement of the hand brakes on the fire-engines depicted.

In England separate fire marks were used sometimes for buildings and their contents, but in America this practice does not seem ever to have been followed.

Fire marks passed out of common use in this country about 1870, when the paid fire departments supplanted the volunteer fire departments in the larger cities. A number of marks or plates

were used later, however, but chiefly for advertising purposes.

The fire mark design shown in the heading of this chapter was taken from that issued by the City Insurance Company of Cincinnati and was probably the most ornate mark ever used by any insurance company in America. The engine shown on it is a rowing type introduced in the late 1840's.

Insurance companies never organized fire-fighting companies of their own in this country but the appearance of their fire marks on burning buildings usually inspired the volunteers to greater efforts in overcoming the blaze. While there is evidence that the relationship between



No. 1. Cast iron—Dutchess County Fire, Marine and Life Insurance Co., Poughkeepsie, N. Y., Org. 1814. Ceased business 1906. **No. 2.** Cast iron—Citizen's Fire, Marine and Life Insurance Co., Wheeling, Org. 1856. Ceased business 1877. **No. 3.** Copper—Home Insurance Co. of New Haven, Org. 1859. Retired 1871. **No. 4.** Cast iron—Chambersburg Fire Insurance Co., Chambersburg, Pa., Org. 1833. Ceased business about 1872. **No. 5.** Tin—The Home Insurance Company, New York, Org. 1853. Still active. **No. 6.** Cast iron—Niagara District Mutual Fire Insurance Co., Niagara Falls, Org. 1836. Ceased business 1896. **No. 7.** Cast iron—Star Fire Insurance Co., Ogdensburg, N. Y., Org. 1854. Ceased business 1857. **No. 8.** Cast iron—Protection Fire Insurance Co., Charleston, W. Va., Org., date unknown. Ceased business 1894.

the insurance companies and the volunteers was generally cordial, the advocacy of improvements in fire-fighting equipment frequently placed the insurance companies in disfavor with the old-time firemen. The public, however, was usually quick to recognize the value of the services of the underwriters. It was a committee representing the fire insurance companies which prevailed upon the New York authorities to replace the old hand engines, chiefly of the goose-neck style, with the more powerful and effective double-deck "Philadelphia" type engines.

A group of the fire insurance companies paid for and introduced the first steam fire-engine tried in New York. This machine was built by

P. R. Hodge, a mechanical engineer. Although this engine was very heavy and difficult to handle, and not very successful for that reason, its good service at several fires paved the way for the acceptance of steam fire-engines in the years to follow. The first of those, one made by A. B. Latta of Cincinnati, was also a gift of the insurance companies in 1858. Of particular interest is a letter written to this manufacturer by the Cincinnati agent of The Home Insurance Company of New York:

"Dear Sir:—I have taken a great interest in the STEAM FIRE ENGINE, invented by you, both as an underwriter and a citizen. In the ease and quickness with which it can be brought to bear,



No. 1. Cast iron—Mobile Fire Department Insurance Co., Mobile, Org. 1866. Ceased business 1879. **No. 2.** Cast iron—Firemen's Insurance Company of New Orleans, Louisiana, Org. 1874. Liquidated 1898. **No. 3.** Cast iron—Mutual Insurance Co., Charleston, So. Car., Org. 1797. Ceased business about 1806. **No. 4.** Cast iron—Union Fire Insurance Co., Nashville, Org. 1870. Ceased business prior to 1873. **No. 5.** Brass—Peoples Insurance Co., New Orleans, Org. 1870. Ceased business 1887. **No. 6.** Cast iron—Citizen's Fire Insurance Co., Columbia, So. Car., Org. date unknown. Failed 1896. **No. 7.** Cast iron—Lexington Fire, Life and Marine Insurance Co., Lexington, Ky., Org. 1836. Ceased business prior to 1872. **No. 8.** Cast iron—Union Insurance Co., Charleston, So. Car., Org. 1807. Ceased business about 1839.

and the constancy and efficiency of its action, when once at work, it as far excels the old-fashioned hand fire-engines, as a locomotive excels a Pennsylvania wagon. (I use this comparison in no figurative sense, but as a just illustration.) The pecuniary advantage of your engine to the city has been great, not only in saving property — especially by preventing sweeping fires — but also in causing a consequent reduction of rates of insurance.

"Hoping, for the good of the public and your own pecuniary advantage, it may come into general use, I remain,

Yours respectfully,
SAM. E. MACK"

The Mutual Assistance Bag Company of New York, forerunner of the Fire Insurance Patrol, was organized in 1803. Among the original members were names such as the Beekmans, the Bleeckers, the DePeysters, the Irvings, the Laights, the Roosevelts, the Stuyvesants, the Swartouts, and the TenEycks.

As an outgrowth of this, there are now salvage corps or insurance patrols in practically all of the larger American cities. Their duty is to attend fires and protect the property from damage. These organizations are employed and their machines and equipment paid for by organizations of insurance underwriters throughout the country.

Responsible for much constructive effort in



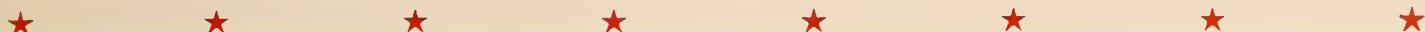
No. 1. Zinc—Home Mutual Fire and Marine Insurance Co., St. Louis, Org. 1845. Closed by State Dept. of Ins. 1880. **No. 2.** Zinc—State Mutual Fire and Marine Insurance Co., Hannibal, Mo., Org. 1865. Ceased business 1873. **No. 3.** Zinc—St. Louis Mutual Fire and Marine Insurance Co., St. Louis, Org. 1851. Ceased business 1901. **No. 4.** Zinc—Franklin Insurance Co. of St. Louis, Org. 1855. Re-insured in Home Insurance Company of New York, 1878. **No. 5.** Zinc—Peoples Insurance Co., St. Louis, Org. 1859. Ceased business prior to 1870. **No. 6.** Zinc—Laclede Mutual Fire and Marine Insurance Co., St. Louis, Org. 1859. Ceased business 1903. **No. 7.** Zinc—City Mutual Insurance Co., St. Louis, Org. 1861. Re-insured 1878. **No. 8.** Zinc—Hope Mutual Insurance Co., St. Louis, Org. 1857. Re-insured 1901.

introducing safe and sane fire regulations and laws in the city was an organization of fire underwriters called the "Salamander Society," which existed between the years 1819 and 1826. This was followed by the Old Association of Fire Insurance Companies of the City of New York, also called the "Salamanders," which merged in 1858 with the New York Board of Fire Insurance Companies.

Although many individuals in the insurance business have contributed constructively to the improvement of fire conditions in the city and the country, one person deserving highest honors was William Brandon, a surveyor of The Home Insurance Company of New York.

Brandon was well-known, not only in New York, but throughout the entire country as a capable fireman. He was born in New York City on October 25, 1835.

Before he was twenty-one years old he served as a volunteer with Peterson Engine Company No. 15. He later became Foreman of Fulton Hose Company No. 15 and next joined Mutual Hook and Ladder Company No. 1. It was during this period that he was severely injured by the breaking of a ladder at a fire in Vesey Street and laid up for several months. He was elected a Fire Warden in 1859, and when the Paid Department came into existence in 1865, he was appointed a Foreman. In April, 1866, he was



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No. 1. Tin—Pennsylvania Insurance Co., Pittsburgh, Org. 1852. Name changed 1891. Ceased business 1924. **No. 2.** Tin enamelled—The Home Insurance Company, New York, Org. 1853. Still active. **No. 3.** Tin—Greenwood Mutual Fire Insurance Co., Winchester, Conn., Org. 1831. Merged 1836.

No. 4. Tin—Queen City Insurance Co., Cincinnati, Org. 1851. Ceased business 1870. **No. 5.** Brass—New Orleans Mutual Insurance Association, New Orleans, Org. 1869. Re-insured 1902. **No. 6.** Cast brass—Lorillard Fire Insurance Co., New York, Org. 1852. Failed 1871. **No. 7.** Tin—Charter Oak Insurance Co., Hartford, Org. 1856. Failed 1871. **No. 8.** Tin—The Franklin Fire Insurance Company of Philadelphia, Philadelphia, Org. 1829. Still active.

promoted to the position of District Engineer, later known as Battalion Chief and in January, 1870, he was again promoted, this time to be Chief of the First Brigade.

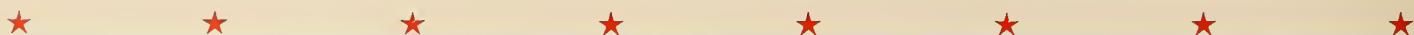
Brandon played such an important role in the organization of the Paid Fire Department in New York City that he soon came to be looked upon as an authority on such matters. This experience, together with his background as a practical fireman, built up his reputation far and wide. Consequently, in June 1873, he was called to Boston and took a leading part in reorganizing the Fire Department of that city.

At the request of the Citizens Committee of Chicago he accompanied General Alexander

Shaler to that city in November of the following year. This visit resulted in the reorganization of Chicago's Fire Department which soon after became one of the best in the country.

In addition Mr. Brandon made a thorough investigation of and report on the fire departments of Philadelphia, Baltimore, Louisville, Nashville, Memphis, Indianapolis, St. Louis, Cincinnati, Cleveland, Milwaukee, Detroit, Albany, Syracuse, Rochester, Buffalo, Elmira, Providence, Springfield, Portland and Bangor.

It was as a result of his reports that the fire departments of most of these cities were reorganized on a basis which resulted in a vast improvement in their service to the public.



The fire marks shown on this page are either of unknown or doubtful origin. The H. V. Smith Museum will welcome information or comments concerning these marks. **No. 1.** Cast iron—Believed to be mark of Duval Insurance Co., N. Y. No record of the concern has been found. **No. 2.** Cast iron—Tiptonville Mutual Fire Insurance Co., Tiptonville, Tenn. Ceased business 1850. **No. 3.** Cast iron—No known record of company or origin. **No. 4.** Cast iron—No known record of company or origin. **No. 5.** Cast iron—Eagle Mutual Fire Insurance Co., Boston. Org. 1895. Ceased business 1897. **No. 6.** Cast iron—Fame Insurance Co., Philadelphia. Org. 1856. Re-insured 1878. **No. 7.** Cast iron—Merchant's Fire Insurance Co., Memphis. Re-insured 1868. **No. 8.** Copper—Eagle Fire Insurance Co., Boston. Ceased business 1862.



The VOLUNTEER FIREMAN

IN THE preamble to the Act of the General Assembly of New York, creating its first fire-fighting organization, were stated these words: "The inhabitants of the city of New York of all degrees have very justly acquired the reputation of being singularly and remarkably famous for their diligence and services in cases of fire."

The members of the fire companies came from all walks of life. The firemen themselves were a power in the city and wielded considerable political influence by their numbers and strong organization. As an individual, the volunteer fireman was expected to stop whatever he was doing, whether work or play, and hasten to a conflagration when the alarm sounded. If he failed to

follow his apparatus or violated any of the innumerable rules and regulations, he was fined, sometimes heavily.

Foreman Zophar Mills of Engine No. 13 said that the pride and ambition of each fire company was to be the first to reach the fire and to be the most efficient in putting it out. "We would leave our business, our dinner, our anything, and rush for the engine. The night I was getting married there was a fire. I could see it and I wanted to go immediately, but the next morning early before breakfast there was another fire and I went to that."

In the minute book of Engine 13, this entry was made on January 15, 1807: "Harris Sages'



"*The Night Alarm, 'Start her lively, boys.'*" Reproduced from a lithograph by N. Currier published in 1854.



"Facing the Enemy" . . . Reproduced from a lithograph by Currier & Ives published in 1858.

excuse is received. He says at the time of the fire he was locked in someone's arms and could not hear the alarm," but there is no comment as to whether he was fined or excused.

Rumors in the old Department were not always the fault of the firemen. A. G. Carson, "Old Saxaparill," Chief Engineer, reported to the Common Council in 1854: "Rowdies still continue to attack the firemen and the latter occasionally attack each other. Companies should be held responsible for the villainy of those whom they permit to run with their engines and to congregate in and around their houses. It is unjust that so many well disposed firemen should be degraded by insubordination. The miscreants who have been removed can, and many of them do, unite with the runners and create disturbances between the companies."

The runners were young men who attached themselves to the companies and ran with the machines "for the fun of the thing," and, most

frequently, with the hope that they would, in due time, be elected as regular members. These were designated also as "substitutes," "aids," and sometimes as "binders-on," "blowers," or "crackers-and-cheese boys." They generally made a good deal of noise as they tugged lustily at the bell and drag ropes, and, if there was a little "roughing" to be done, they were just the boys to do it.

While there was undoubtedly a number of weaknesses in the volunteer system of the old days, considering occasional brawls, pranks and energy-wasting play, the volunteer fireman was constant, even fervent, in his duty and willing at all times to gamble with his own life to save the life of another.

"The fireman, from his slumbers waking,
At once his quiet home forsaking,
Regardless of both health and life,
Rushes to the deadly strife.
While still the cry of wild despair
Is wafted on the midnight air,
Fire! Fire! Fire!"



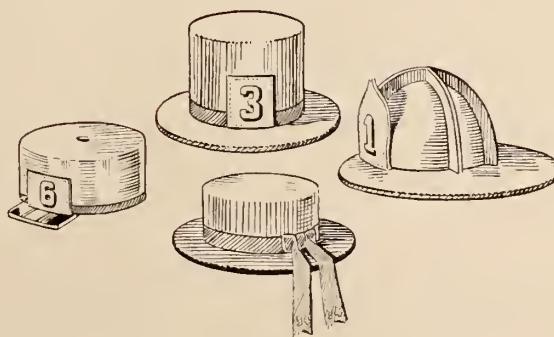
"Always Ready" . . . Reproduced from a lithograph by Currier & Ives published in 1858.



THE DEVELOPMENT OF THE Fire Hat AND Helmet

JACOBUS TURCK, a caretaker of New York's first fire engines, was credited with having invented the leather fire cap sometime before 1740. This was described as being round with a high crown and narrow brim. It is probable that, following the fashion of the day, the stovepipe style of hat worn by firemen and bucketmen was developed after the Revolutionary War period.

Many of the early fire cap makers were saddlers by trade. Matthew DuBois, originally a saddler at 19 Barclay Street, advertised himself as a cap maker and set up a factory at 43 Anthony (now Worth) Street in 1824. He deserves special mention because he introduced the sewing of iron wire rims into the edge of the brims so that the caps



could be shaped and would be impervious to warping from heat or moisture.

Other cap makers of the early days were John Wilson, a saddler of 33 Mott Street, and his son, William; John W. Towt, a member of Hook and Ladder Company No. 1, who made fire caps in the rear of his store in Old Slip; William Baudoine of Chatham Street; George Henry Ramppen of lower Broadway and Robert Roberts, whose shop was located in Division Street.

Of all fire cap manufacturers in the country, however, Henry T. Gratacap was undoubtedly the most famous. After an apprenticeship in the shop of William Hinton in 1828 he became in-



Figure 1

terested in the making of fire caps and opened his own factory in 1836. For thirty-two years he manufactured most

of the caps used by the New York firemen as well as by firemen in other cities throughout the nation. He sometimes produced more than a hundred a week. While it has been said that he was the first manufacturer to extend the brim to the rear, this would seem doubtful due to the fact that old prints ante-dating his times depict firemen wearing hats with flat brims more or less extended in the rear. Raised and stitched hat fronts, however, were Gratacap developments as was also the brass eagle head front or badge holder. While it is not clear as to just how he originated this design one source claims that he got the idea from a fire cap on a firemen's monument chiseled by some unglorified sculptor. Cairns & Brother, Gratacap's successors, believe that in any event the design was inspired by the patriotic fervor following the War of 1812.

Following the eagle head, which sometimes

was constructed also of leather, a wide variety of hat front holder designs became popular. Some of these are illustrated

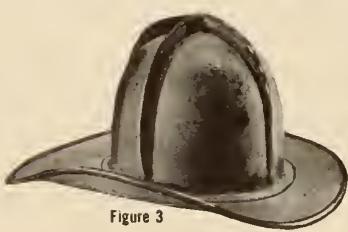


Figure 2

at the bottom of this

page. The collection in the H.V. Smith Museum includes also those in the form of a sea-horse, a serpent, a beaver, a greyhound, a fox, and the tiger which is still used by the firemen of New Orleans. Fire caps with rounded crowns were put together in sections held together by seams sewn into protruding ridges of leather called "combs." The crowns of the first hats of this type were most commonly in four sections (figure 3) having four combs. In later times the cap crowns were made of more sections and the number of combs thus increased. Hats of eight, twelve and sixteen combs were common and very intricate and handsome presentation hats which were made with many combs were not unusual. The hat shown in figure 5 was made by Gratacap for display in the Crystal Palace in 1853 and was made with 144 combs or distinct seams. Although the crown segments were sometimes put together in special designs, such as the basket pattern and that shown in fig. 2, fire caps were most commonly made with vertical seams as they are today.

Many of the caps manufactured by Gratacap and his successors, Cairns & Brother, were very elaborate. Those used



Figure 4



Figure 5





Figure 6

for presentation gifts frequently cost as much as \$500 each. The most ornate and expensive was one made by Gratacap for presentation by the volunteer firemen of Sacramento, Calif.,

to Foreman Hunt of that city. This hat, together with its badge or front mounted in gold and silver, containing several precious stones, cost the pretty sum of \$1,350.

The fire caps of the Chief Engineer and Engineers of New York were painted white and the Fire Wardens wore caps with black brims and white crowns. All other firemen wore black caps.

The four hats appearing on the bottom of this page were worn by four famous chief engineers of the New York Volunteer Fire Department. From left to right, James Gulick, who served from 1831 to 1836; Uzziah Wenman, who served from 1828 to 1831; Harry Howard, from 1857 to 1860, and John Decker, the last Chief of the Volunteer Fire Department, who served from 1860 to 1865.

While the chief purpose of the fire hat was to protect the firemen from head injury, it served also to shed water from the back of his neck and, when turned around, to shield his face from intense heat. Fire hats were handy, too, in an emergency for smashing glass.

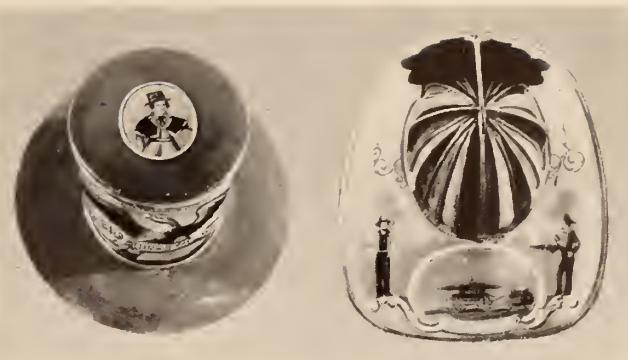


Figure 8

Special treatment of the leather used in manufacturing fire caps made them almost unbreakable but the hat appearing in figure 7, is a reminder of the danger the fireman constantly faces. It was worn by James Graham, a heroic fireman who was caught by a falling wall and killed in a fire in 1858.

It was recorded time and time again, however, that the firemen's caps were the means of saving their lives.

Firemen who wore colored scarves around their helmets were on house duty. Each company had two men to clean and oil the engine, dry the hose, etc.

A wreath of oak leaves placed around the crown of a fire cap signified that the wearer had saved a human life.

Some of the old-time volunteer firemen fastened metal lamps or torches to their hats (figure 6) for use in night parades.

Figures 1, 4 and 8, and especially the design at the head of this chapter, illustrate the ornateness with which many of the old-time parade and presentation hats were decorated.

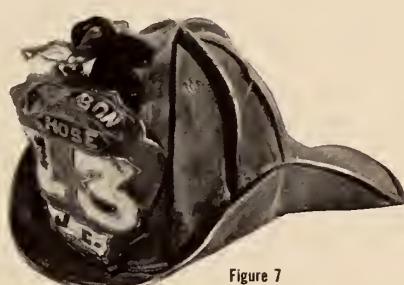
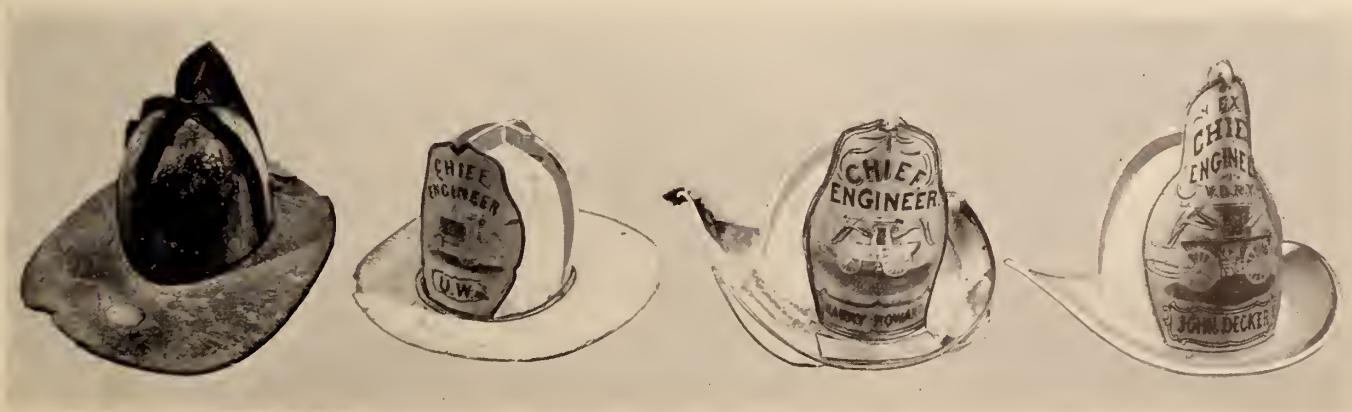


Figure 7



Hat FRONTS and Presentation SHIELDS



WHETHER OR NOT there is any basis of fact in the theory that the American fireman originally adopted the style of hat badge worn by the Hessian troops of the Revolutionary War as an identification of their calling, can not be proved. Nevertheless the shields or fronts worn on the caps of the troops, particularly those of Hesse-Sassel Bombardiers, are greatly similar to the fronts used afterward by firemen in New York and elsewhere.

The first fronts used on fire-caps were made of a single thickness of heavy sole leather with the number of the fire company painted in oils on the smooth side. As early as 1812 it was resolved in the Common Council that "the Lettering and Numbering on the Fire Caps be as uniform as possible—no Flourishes nor Gilt letters to be put thereon."

In the 1830's, Henry T. Gratacap, famous fire capmaker, introduced the first stitched front which he placed on a cap that he made for Ebenezer Silleck, Foreman of Engine Company No. 14.

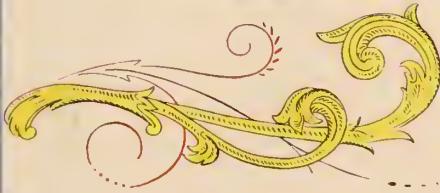
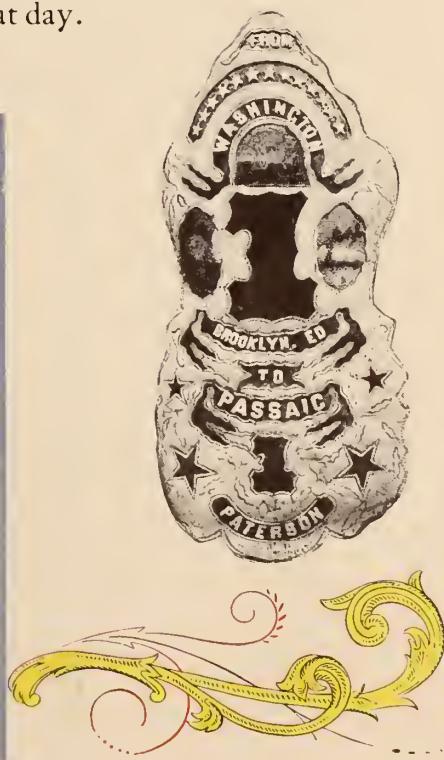
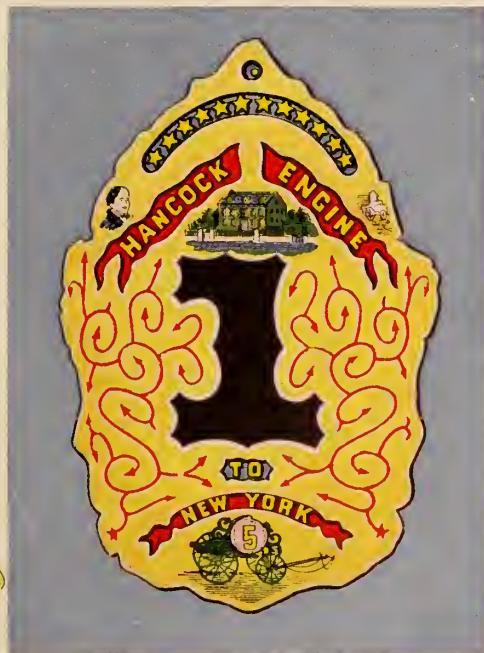
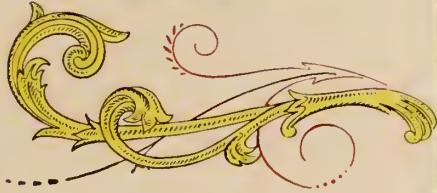




The figure "14" was cut out of the white front piece and a solid piece of black leather stitched behind it. Gratacap then reversed this arrangement by cutting out figures and stitching them on, thus producing the raised cap front. Both of these styles are used to this day.

Regulations provided that the cap fronts of the Engineers should be gilded, bearing the painting of a fire-engine. The foremen and assistant foremen of the companies were to wear cap fronts painted white with the lettering in black. Regular members wore black fronts with letters of white. Firemen of the hook and ladder companies wore hat fronts with a hook and ladder painted upon it; hose companies wore similar fronts with the exception that coiled hose was substituted for the hook and ladder.

Presentation shields, worked in leather, varied from regular cap front size to more than thirty inches in length and cost from \$10 to \$100 each. These were often given as tokens of friendship or admiration and the companies were proud, indeed, to display such testimonials of their popularity in a prominent place in their engine-house or bunk room. Many of the shields were embellished with the likeness of patriotic characters, famous scenes, well-known landmarks or pictures of the machines painted in oils in a creditable manner. The variety of the designs and liberal use of inlays, fancy stitching, raised letters, gold, silver or other metal ornaments give some idea of the extent of the leather worker's art of that day.





Gay Garb OF THE OLD "VAMPS"

THE VOLUNTEER FIREMAN's uniform most frequently consisted of the clothing that he wore when, at the sound of an alarm, he dashed to overtake his engine or reach the fire. When time permitted, however, he was most impeccable in his attire and, indeed, frequently squandered much of his spare money on clothing and accoutrements. Inasmuch as the volunteers paid for their own uniforms, just as they paid for decorating and painting their fire-engines, their tastes in these matters were fancy-free, if not startling at times.

In 1820 white duck suits worn with black leather belts were considered good style. Ten years later some of the companies adopted costumes consisting of drab kersey coats with large side pockets and white bone buttons; trousers were of the same cloth. Belts of russet or black harness leather were considered an important accessory.

What was called the "New York Standard" uniform of the Volunteer Fire Department in the 1850's consisted of thigh-length cowhide boots,

blue black trousers, red shirt, and a more or less fancy leather belt. In cold weather the firemen wore blue-black pilot cloth coats. The most distinguishing feature of this costume, however, was the red shirt which was made in either single- or double-breasted style.

It is recorded that members of the "Honey Bee," Protection Engine Company No. 5, were the first to wear red shirts in New York. Such an appropriate splendor soon met acclaim and was adopted throughout the entire Department.

Fancy gallowses, or suspenders, were very popular among the old-time firemen and runners. These were ornate and colorful and bore the insignia, name or number of the company to which the fireman was "jined up." Many a fight among the runners resulted from the "giveaway" of an "enemy" through lifting his coat and discovering the insignia of a rival company on his gallowses.

In later years parade uniforms of many styles were worn. The illustrations show just how far the laddies would go in this respect.



Speaking Trumpets

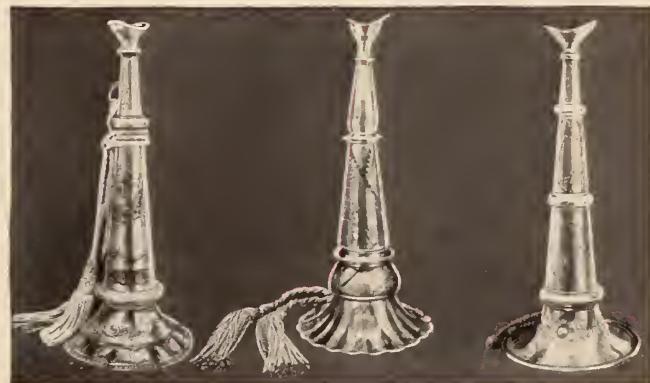
OR DRINKING HORNS

EARLIEST mention of speaking trumpets in New York was in 1752, when Jacobus Turck, who had looked after the engines, was authorized "to purchase six small speaking-trumpets for the use of the Corporation." Speaking-trumpets were carried by assistant foremen, foremen, and other fire department officials. As may be seen from the specimens shown, they were of various sizes and shapes. The first ones were made of tin and painted, although those of brass made an early appearance.

The carrying quality of some of these trumpets was remarkable. Theodore Keeler of Engine 13 said of Zophar Mills, later Fire Commissioner, "I slept in the attic of my house in order to more easily hear alarms of fire. I've heard Zophar Mills halloo from Pearl Street when I was in bed in William Street, a distance of four blocks, 'Turn out! Turn out! Fire! Fire!' Of course, when he yelled that, out I went."

At a fire in Pearl Street, in 1834, Zophar Mills was carried through two floors with a falling wall, miraculously escaping death. He was probably saved by the tin trumpet which was swung across his back. He said his back was black and blue for six months after the accident.

Trumpets were made not only to shout through—they were very handy weapons in



fights, and when the laddies gathered at a tavern for an evening's entertainment a plugged up trumpet made an appropriate mug from which to quaff the golden ale. As may be seen from the illustration, the mouthpiece was removed. A cork inserted in the speaking end made a very effective, if somewhat formidable, drinking vessel.

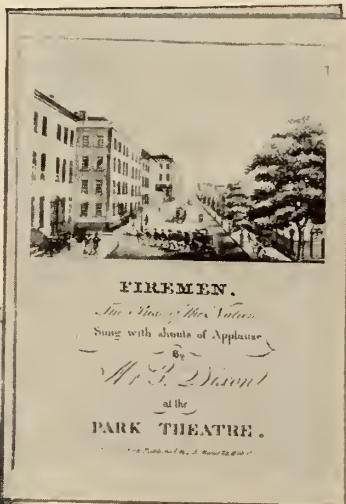
The crushed trumpet was taken from the ruins of a fire which occurred in 1854 in which Noah L. Farnham, a member of Engine Company No. 42 acted with great heroism. His narrow escape from a falling wall can be readily understood from the condition of the trumpet which he dropped in dodging the debris. Farnham was affectionately known in the Department by the nickname of "Pony" and this trumpet is inscribed, "To Pony...From the Bunkers."

Trumpets were used throughout the days of the Volunteer Fire Department as gifts and tokens of esteem. Many of those in the H. V. Smith Collection are of solid silver, beautifully ornate with carvings and inscriptions. Some were inlaid with gold, and there is one specimen incrusted with semi-precious stones. Three of these presentation pieces are shown at the top of this page.



"Our Duty is Our Delight"

These are typical covers of the hundreds of songs and dances dedicated to the Volunteer Firemen often illustrated with beautiful engravings or lithographed in full color.



Ballads of the Volunteer days often were published for special occasions and such phrases as appear on the one above "sung with shouts of applause" were not infrequent.

"Since here we've met in our beautiful hall,
Give ear to my story, ye citizens all.
I sing the bold fireman, whose true, sturdy stroke
Always turns every fire which we have into smoke."

THESE WORDS, sung to the tune of "King and Countrymen," were from one of the innumerable songs sung to the rafters by the members of the old Volunteer Fire Department.

Many of the fire companies could proudly boast their own waltz, schottish, polka or march especially composed in their honor. The fact that so many of the popular ballads of those days centered upon the fireman and his life is indicative of his place and importance in the community. From "Firemen, the Pride of the Nation" of the 1830's, we have this romantic gem:

"To a Fireman's calling, I mean
To draw a few parallel cases:
In the course of my song 'twill be seen
What a number of folks it embraces:
The ladies are firemen by trade,
When we ring all the belles 'round about, sirs,
A coquette often dies an old maid,
Because she puts all the sparks out, sirs."

From the 1850's, written to the tune of "Lucy Long":

"Now comrades pay attention while I rehearse the fame
Of a pretty little engine we always loved to name."

CHORUS

"O, break her down, my hearties,
My hearties, stout and strong,
O, crack her down, my hearties,
To the tune of 'Lucy Long'."





Steel engraved tickets to the annual Firemen's Ball, which was an important yearly event in the days of the Volunteer Departments. Tickets



averaged five dollars, and more than one hundred and twenty-five thousand dollars was raised from 1830 to 1873 for the Benevolent



Fund. Here was a combination of pleasure and duty that always appealed to the old Vamps.

The Annual Ball of the New York Fire Department during the days of the volunteers was one of the most important social functions of the city and was attended by leading citizens and celebrities. Individual companies gave dances, soirees and other forms of entertainment and in the summer-time special "white duck dances" were held. That the ringing of the fire alarms

Grand Presentation OF A **BANNER,** BY THE **LADY LAFAYETTE**

**Temperance Benevolent Society,
TO
FIRE ENGINE Co. No. 10.**

On Tuesday Evening, June 28, 1842,

IN THE

CHURCH CORNER DELANCEY AND CHRISTIE STREETS.

PART I.

PRAYER, - - - - - BY REV. MR. MARTIN.

Temperance Millennium.....L. L. T. B. Society.
Welcome Lafayette.....Bogart.
Old Onken Bucket.....Madden.
Song.....Ducau.

ADDRESS, - - - - - Mr. BRUSH.

Air, Hail Columbia.....Brass Band.
Ode.....Fire Co. No. 10.
Song—"Temperance Tree".....Lebars.
Duet—"Drunkard's Resolve".....Murphy and Lebars.
Song.....Nagle.
Presentation of Banner.....By a Lady of L.L.T.B. Society.
Reception of Banner.....Foreman Fire Co. No. 10.
Air.....Brass Band.

BENEDICTION, - - - - -

PART II.

ADDRESS, - - - - - MR. SNOW.

Alcohol is GoingGreen.
Engine and Tight hose.....Master Madden.
Song.....Nagle.

ADDRESS, - - - - - MR. LATHAM.

Ode—"Temperance Ship and Temperance Crew," Words by J. Alkman.....J. Murphy.
Trumpet Song.....Bogart.

Song—"Long Lost Youth," Words by Mrs. } Lebars.
Dana.....} Duncan.

Ode.....Master Brown.
Song.....Duncan.

Ode.....Fire Co. No. 41.
ADDRESS, - - - - - REV. MR. MARTIN.

Ode.....Madden.
Song.....No. 15 Hose Co.
Sister's Call.....Three Ladies.
Ode.....Fire Co. No. 10.
Ode.....Ladies' L. T. B. Society.

REV. C. N. HAWLEY.

N. B.—JAMES GULICK, Esq., and Mr. C. V. ANDERSON, Chief Engineer, are expected to be present on the occasion.

TICKETS ONE SHILLING each, to be obtained at No. 355 Bowery, 364 Bowery, 267 Bowery, office of the *Washingtonian*, and at the door on the evening of the presentation.

Oliver, Cheap Cash Printer, "Organ" office, cor. Ann and Nassau-sts.

was disastrous to white ducks was a thing no rival company could overlook. Consequently, the Chief Engineer of the Department would often grant permission for the celebrating company to ignore the first alarm sounded during such festivities.

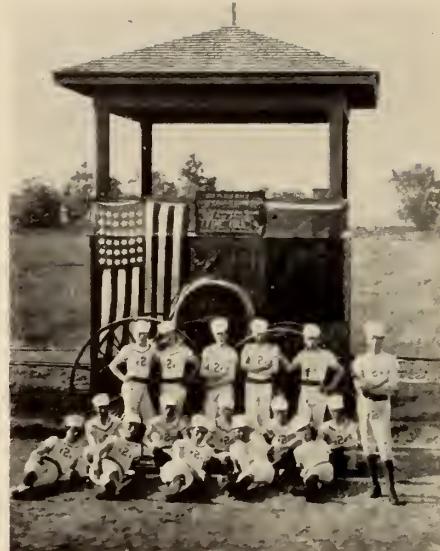
The old prints reproduced at the bottom of these pages illustrate the Erie Canal Celebration



Parade of 1825, in which the Department turned out in all its splendor.

"The firemen were great on parades" as one old veteran said. Among the most noteworthy in which the New York firemen participated were those in honor of Lafayette in 1824, the opening of the Croton Aqueduct in 1842, the death of John Quincy Adams in 1848, the laying of the Atlantic Cable in 1858, and that in honor of the Prince of Wales in 1860.

Commenting upon the Grand Triennial Parade of 1859, a contemporary writer described it: "Thousands of people lined both sides of Broadway. It was a lovely night, clear, crisp and cold and the rays of the moon fell upon the marble edifices with a brilliancy as if they had fallen upon icebergs or the snowy summits of hills. Every object was sharp and distinct. It was a grand turnout of the firemen. Each company had its favorite engine gaily ornamented with ribbons, flags, streamers and flowers and preceded by a band of music. Each



A volunteer hose company at a racing exhibition. These sixteen men ran their fully equipped hose carriage weighing 1325 pounds a distance of 500 yards in 1 minute 22 $\frac{3}{4}$ seconds.

man held the rope of the engine in one hand and a torch in the other. The sight was peculiarly impressive and picturesque."

Racing the engines and hose reels was considered so important that consideration was given to this technique to the smallest detail. One old fireman related that while his company had, for many years, gotten off to a quick start by having their largest and strongest member stand behind the engine to shove her mightily

for a quick start, he, the speaker, developed the technique of having the same husky at the words "Get Set," hold back the machine with all his strength, while the men on the ropes strained against him.

At the word "Go" the man at the rear released his hold and the engine spurted ahead with incredible speed, "getting the jump" on their rivals.

*"With such bold protectors
no fear will we feel,
With their arms all untiring,
and hearts true as steel."*



"The Race. 'Jump her boys, jump her!'" Reproduced from a lithograph by N. Currier published in 1854.

"Paint the OLD GAL Green"



THE New York Volunteer firemen were so particular as to the ornamentation of their fire-engines and other machines that it was customary for the city to deliver all new apparatus painted in a flat tone of gray.

Money spent to dress up the machines came out of the pockets of the firemen themselves and choosing the design, coloring and other decorations was one of the most important functions among the fire companies.

There is a story of a meeting of the members of Engine Company No. 3, who gathered in the famous old Tea Water Tavern, to decide upon the ornamentation of their new engine which had

just been received from the Corporation Yard. The Tea Water pump, which stood opposite the tavern, had just received a fresh coat of pea-green paint and one of the firemen in coming to the meeting noticed the pleasing contrast with the white snow piled about it. When the question of color arose, he zealously shouted, "I don't care what color you paint her if you'll only paint the old gal green." The other companies learned of this speech and afterward when No. 3 extinguished a fire it was said that she "painted it green."

The colored illustrations on preceding pages give some idea of the love of the volunteer firemen for decorating their engines, carriages and



Silver plated lamp of Clinton Hose Company No. 17



Brass lamp carried on the engine of Eagle Engine Company No. 13



One of a pair of side lamps carried on a hose reel



Signal lamp of "Red Rover," Howard Engine No. 34

trucks. Ornamentation frequently took the form of nickel, silver or even gold plating in addition to the beautifully executed oil paintings on the panels and the careful carriage striping on the box. It was customary for the companies to appoint special committees to take care of such details as designing and securing new leader jackets, for lining the leader jacket or cover for the hose reel, plating the bow, tongue or other metal work, for securing painted panels or fancy lamps or for many other improvements.

Engines 13 and 14 were among the handsomest



Shield carried on Columbian's Hook & Ladder Truck



Leader Jacket of Engine Company No. 28

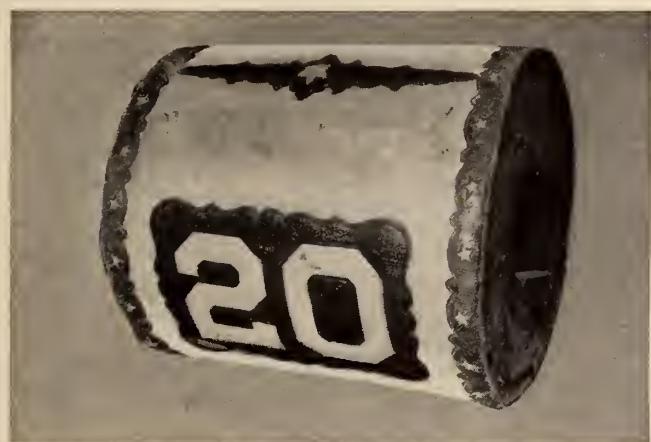
of the early goose-necks. It was reported that Engine Company 13 was the first one in the city to have the machine silver plated and probably the only one in the country whose brass work was silver plated. This engine was painted black, striped with gold and highly polished. Jupiter hurling thunderbolts was painted on her back. Altogether, she was one of the most elegant engines ever seen and her silver mountings alone cost \$800, which was paid for by the Company and its friends.

No. 31 had solid gold figures on its sides. Niagara Engine No. 4, the handsome painted



panels of which appear at the bottom of Page 58, was silver plated about the year 1836, as was Engine No. 23.

The old goose-necks, with their high-backed panels, were more readily adaptable to decoration than any other type. Some of the best American artists of the first half of the 19th Century were commissioned to paint panels or otherwise decorate the fire engines and hose carriages. William H. Philip, a well-known portrait painter, Henry Inman, another celebrated artist, Joseph H. Johnson and T. Pine painted many panels in elegant style for the various engine and hose



Leader Jacket from Washington Engine No. 20



Painted Panel of Clinton Engine No. 41

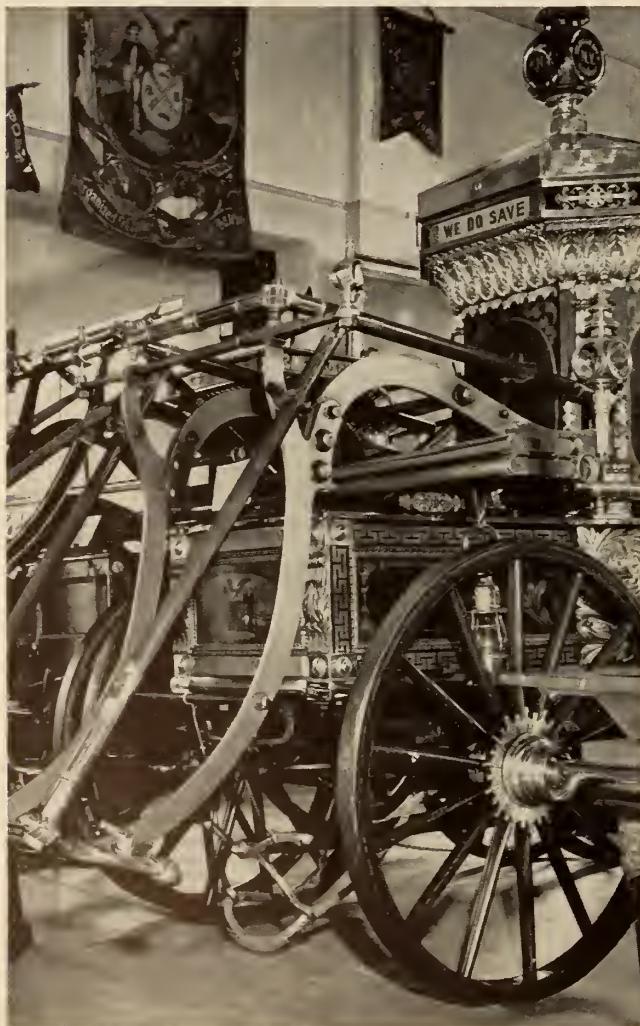
companies. On the back of Oceanus Engine No. 11 was the representation of the burning of Troy in the background and Neptune with his trident in the foreground. No. 11 was the first New York company known to have had a carved back on its engine.

There was a picture of the Bunker Hill monument on the back of Engine No. 32. No. 14 Engine displayed the form of Columbia herself. This back was said to have cost more money



than any other of the time. The stanchions of "Honey Bee," Engine No. 5, were decorated with brass beehives and on the back was a picture of Hercules slaying the lion. When Engine 42 disposed of its old engine, the back was presented to her Assistant Foreman, who had just become a father and who made a cradle of it. These backs were usually made of mahogany and were taken off and put on at will. It was customary to take them off when the engines were hauled out for a fire.

It was often remarked that the American firemen were "great on reels," and some of the most elaborate and ornate machines in the world were run by hose companies of the old New York Fire Department. As one old volunteer put it: "These spools often vie in beauty with the finest parlor furniture, sometimes being emblazoned all over with gold, silver and the choicest artistic gems.



Philadelphia style engine, captured by the New York Fire Zouaves in the Civil War, a superb example of the art of engine decoration



Painted back of "Red Rover's" Goose-neck Engine

No wonder that such apparatus are the pride of the possessors. Things of beauty are joys forever,"—even if they were hose carts.

Of the hose carriages, Amity No. 38 was claimed during its day to be the handsomest vehicle of the kind in the world. The Company valued it so highly that when the Volunteer Fire Department was disbanded, they hid it away. Nobody told where it was and for many years it disappeared. Later, however, it came to light and it is now housed in the firemen's association headquarters of a New Jersey town.



*Old time spring bells.
The lamps are modern*



*Signal lamp and sta-
tionary torches*

Manhattan's LAST VOLUNTEER

GEORGE W. COLLIER, the last surviving member of the New York Volunteer Fire Department, was born at 13 Christopher Street on June 7, 1843, and at the age of 96 is, to use his own words, "hale, hearty and always hungry." His experience in fire fighting began as a runner and later as a full-fledged member of Guardian Engine Company No. 29, and as foreman of Jefferson Engine Company No. 26.

While serving with the 12th New York Infantry in the Civil War he was taken prisoner at Harper's Ferry, but was released and saw service again with the 71st Regiment.

He distinctly remembers seeing Abraham Lincoln at the old Astor House just before the latter left for Washington to be sworn in for his second term as President.

Mr. Collier was among the first to reach the fire that on July 13, 1865, destroyed Barnum's Museum, which stood at the corner of Ann Street and Broadway. The flames started in the basement and soon enveloped the whole building. In forty-five minutes the Ann Street wall crumbled and half an hour later the Broadway wall crashed to the ground. Practically all of the beasts and birds in the building were destroyed by the flames. At that time his company ran a hand-drawn steam fire-engine which was called the "Iron Horse."

He knew William (Boss) Tweed, who was Foreman of Americus Engine Company No. 6, and many other celebrities of old New York.

In years past, he was President of the Exempt Firemen's Association and held offices also in



From a tintype taken at the age of 21 in Civil War uniform

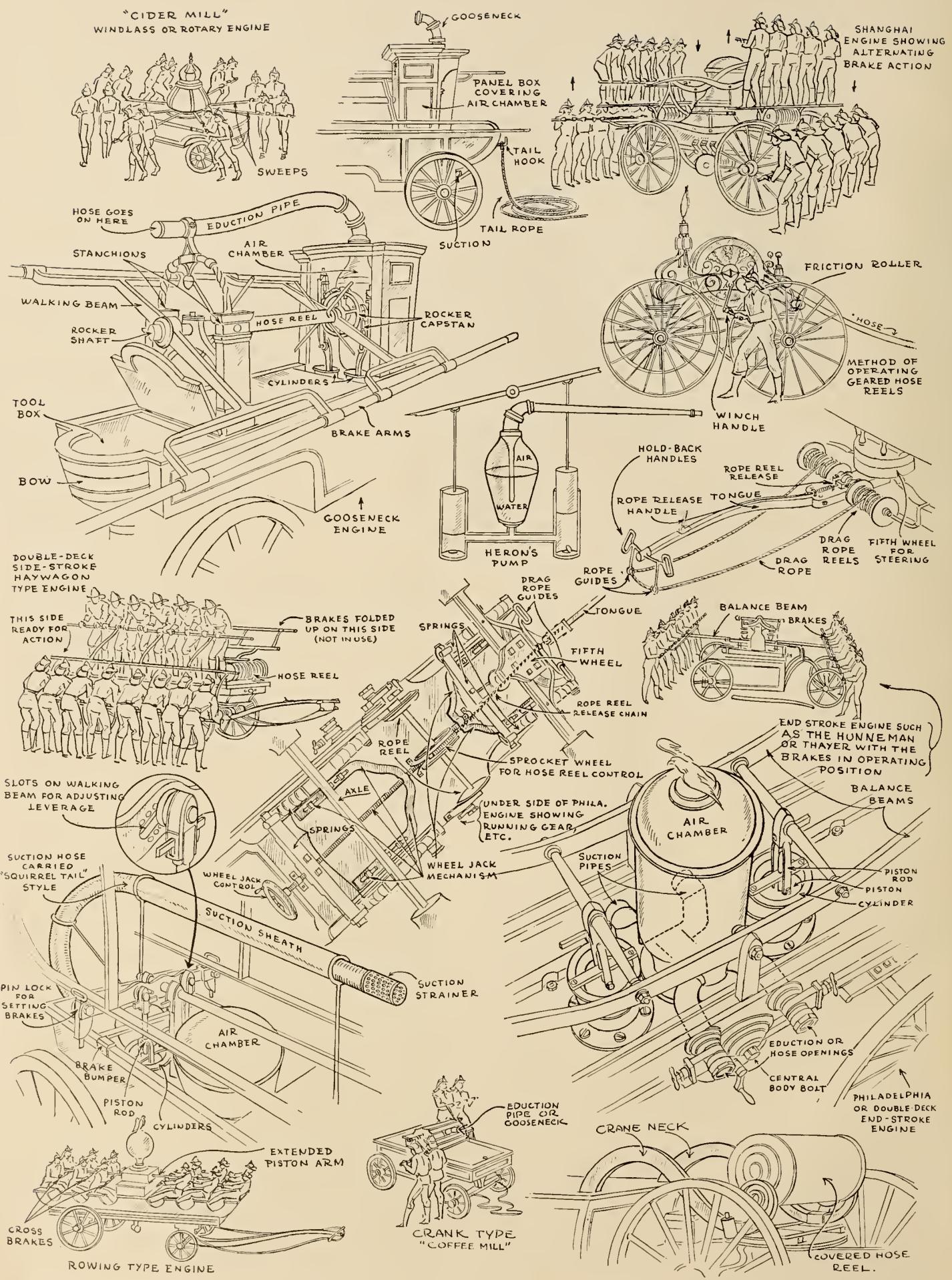
the Uniform Company and the Volunteer Firemen's Association of New York. He is at present senior trustee of the Firemen's Home at Hudson, New York, and an honorary member of many other volunteer firemen's associations.

He has reached his revered age with honor, kindness and a splendid sense of humor. It is through his wise old eyes that the author has had the experience of looking into the past in depicting and recording many of the scenes here presented.

In speaking of the famed rivalry which existed so many years ago between Howard Engine Company No. 34 and his own Company, No. 29, he likes to repeat:

"Little Red Rover,
No machine could turn her over,
29 began to play,
Turned her over right away."





Glossary



BRAKES—The rods or bars by which the hand-pumped fire-engines were manually operated.

BUNKER—Fireman or runner who bunked or slept at or convenient to the fire-house.

BUTT—The end of the hose to which the pipe or nozzle was attached.

CIDER MILL—A hand-pumped fire-engine operated on the principle of a windlass or capstan.

COFFEE MILL—A fire-engine manually operated by a crank on each side of the machine.

COMB—The ridge of leather sewn into the crown of fire caps.

CRAB—A heavy and serviceable type of four-wheeled hose reel.

CRANE-NECK—A manually operated fire-engine principally characterized by an arched or steel device to permit the front wheels to turn under the body.

DRAG ROPE—Rope for hauling the engine.

FRONT—The leather, and infrequently the metal, badge appearing on the front of a fireman's hat.

GALLERY—A term used to designate air compression chamber.

GALLERY ENGINE—A double-deck end-stroke type fire-engine with the air compression chamber in the center of the machine.

GOOSE-NECK—A fire-engine so called from the shape of the pipe that issued from the top of the condensing case or air chamber.

HALF SPANNER—A tool used for coupling hose.

HAY WAGON—A double-deck side-stroke hand-pumped fire-engine.

JUMPER—A two-wheeled hose cart.

NIGGERING—When pumping in line one engine would be said to "nigger" another by beginning eight or ten strokes ahead before the water from the butt of their hose was discharged into the box of the other engine.

PIANO ENGINE or PIANO BOX—A machine with a flat or plain deck thought to resemble a square piano in appearance.

PIPE—A nozzle.

PLAY—Guide the stream.

RUNNER—A boy or young man who attached himself to a fire company to help clean, haul or work the engine in the hope that he might later become a member.

SALAMANDER—Nickname for a fireman, popularly supposed to resist fire or heat, as a salamander.

SHANGHAI—An end-stroke fire-engine with alternating brake action.

SLUSH—A cheap or inefficient preservative for leather hose.

SPANNER—A tool used for coupling hose.

SPIDER—A light racing four-wheeled hose carriage.

SQUIRREL TAIL—A large brass tube to hold the suction hose attached to some types of fire-engines.

STAVE HER SIDES—A popular phrase meaning that the rapidity of stroke in a hand-pumped fire-engine would cause suction so great that the sides might become drawn in. (Humorous.)

SWAN NECK—A light "factory" or so-called "sidewalk" engine which could be pumped by one or two men.

SWEEPINGS—The brake handles or bars used in a windlass or capstan type fire-engine.

TAIL HOOK—A metal hook on the rear end of fire-engines to which two-wheeled hose reels or tenders could be attached.

TAIL ROPE—A coil of rope fastened to the stern of an engine used to control its speed when being hauled to a fire.

TENDER—A term sometimes applied to a two-wheeled hose reel.

TUB—Fire-engine with no suction.

TURN TONGUE IN—When an old-time engine company was suspended for fighting or the infringement of some other department rule, it was said to be "turned tongue in" and was not permitted to answer alarms until the suspension was removed.

UP TO THE BEND—A phrase relating to the depth of the water in the well or feeder box of a fire-engine.

VAMP—Popular name for old-time fireman.

'VAST PLAYING—A term meaning "stop pumping."

WASHING—A term used to describe the flooding of one engine by another when more than one engine was working in a line to carry water long distances.

WASHING DOWN—To drench with water so as to thoroughly put out fire that might be lingering in straw, cotton, etc.

JF

The author gratefully acknowledges the courtesy of the Trustees of the Firemen's Home at Hudson, N. Y., in making available their remarkable Museum as a source of research and for granting permission to reproduce the photographs of the hats of the Chief Engineers and that of James Graham on page 49, the Trumpets shown in col. 1 of page 53, and the panels of the Williamsburg Engine on page 59, and to the Museum of the City of New York for the permission to reproduce the Niagara Engine panels on page 58. Appreciation is expressed to those skilled craftsmen of the following organizations, who, like the fireman with his engine, undertook each his part with understanding and care; Frank E. Lindsay Co.—*Art*; Walker Engraving Corp.—*Engravings*; Morrell & McDermott, Inc.—*Typography*; Gordon • Glover • Greene Printing Corp.—*Printing*.



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